"Sesotho farming: the condition and prospects of agriculture in the lowlands and foothills of Lesotho"

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ABSTRACT

It is postulated that agricultural development in third world countries cannot properly be appraised without an understanding of the farming knowledge, and economic and cultural attitudes, of those citizens whom it is supposed to benefit; the factors which have moulded the contemporary individual's approach to farming must also be appreciated. Physical factors affecting agriculture in the lowlands and foothills of Lesotho are therefore outlined; the economic history of the Basotho nation is then discussed, and the present contribution of agriculture to national subsistence noted. It is argued that the farming sector is in decline but that it retains a vital role in the sustenance of most households. Two aspects of cultural context are examined: vernacular relationships with the landscape, and the perceived role of cattle. Contemporary Sesotho agricultural methods and farming knowledge are then outlined, and the important social networks which sustain agricultural production are discussed. In a broad analysis of Sesotho world-view, the individual's attitude to farming is located. It is argued that the extent of farming knowledge, the degree of interest in this activity and the needs, problems and desired changes reported reflect an accurate appraisal of the role and actual potential of agriculture in Sesotho economy today. The significance of this appraisal for rural development is then shown in a discussion of soil erosion and conservation in Lesotho. The analysis is expanded to consider the policies of government and aid projects in other areas of agriculture.

It is concluded that these are more likely to meet with success where they reinforce the supplementary subsistence role farming is still expected to fulfil; more ambitious initiatives may not correspond with realistic Sesotho expectations in this sector.

PREFACE

To acknowledge some of the many people who have helped me in my work on Sesotho farming without naming them all would be an invidious task; yet my debts are so numerous and widespread that I could not hope to list them in full. I therefore name certain principal sources of assistance only but extend my thanks to all those whose kind cooperation has enabled me to undertake and complete this study. Those who helped me most, in Lesotho and in Britain, know it all too well. I hope they also know how grateful I am to them.

The research was made possible by an award from the Social Science Research Council, whose assistance is gratefully acknowledged. My supervisors, Professor Dick Hodder and Dr Paul Richards, have given invaluable support throughout the planning, field research and writing stages of this work.

In Lesotho, I am grateful to the Permanent Secretary in the Ministry of Agriculture, Cooperatives and Marketing for permission to carry out my research in liaison with the Thaba Bosiu Rural Development Project. My debt to the manager and staff of this project - and especially to its Planning and Evaluation Unit and its Soil Conservation Division - cannot be exaggerated. They provided access to all the data they had already collected; allowed me office facilities and personal transport in the field; provided financial and logistical support for the questionnaire surveys which were undertaken; and were a constant source of information, advice and encouragement. The copy of this study which I submit as a report on the

investigations carried out in liaison with them is a small return for their generosity.

The Department of Geography in the National University of Lesotho was also generous in allowing me to use its facilities; members of the staff never failed to offer advice, information and opportunities for discussion - not to mention baths and other comforts - during the fieldwork period, and have done me the invaluable service of picking up various pieces after my departure.

My greatest debt, however, is to the many hundreds of Basotho who bothered to answer my questions. I am particularly grateful to the chieftainess and people of the village here called Ha Khoeli for the friendly home they gave me between September 1976 and June 1977. In changing the names of the village and of all those inhabitants to whom I refer, I do not believe I conceal any information that might compromise or embarrass them; but I promised from the beginning that I would not name them in my work, and I have therefore made the necessary alterations. There too, those who helped me most know it well.

There follow some notes on presentation. I have attempted to use the current orthography of Lesotho when writing Sesotho. Where Sesotho is quoted from other authors, however, their orthography is not altered. The basic terms of nationality should be clarified for those unfamiliar with Lesotho: the people of the nation are Basotho; an individual is a Mosotho. Their language is Sesotho, but this term also describes the Basotho's way of doing things: thus, the Sesotho way of life, and Sesotho farming.

It is standard academic practice not to translate quotations from other authors written in foreign languages. Few fellow students can be expected to understand the Sesotho quotations given, however, and by the same token it is unlikely that Basotho readers will understand the French ones. Translations of such foreign quotations are therefore given in footnotes. Metric units are used throughout the text, unless otherwise stated. The monetary unit in Lesotho is the rand, which at present equals approximately £0.55.

CONTENTS

	Page
Title page.	1
Abstract.	2
Preface.	4
List of contents.	7
List of tables in the text.	16
List of figures in the text.	21
Chapter one	22
Introduction.	22
Lesotho.	22
Research design.	28
Physical conditions.	33
The lowlands and the foothills.	34
Topography.	36
Soils.	37
Climate.	41
Pests and diseases.	45
Chapter two	48
The circumstances of Sesotho farming.	48
Introduction.	48
Early history.	48
The old and the new.	48
Early distribution.	49
Early economy.	49
Changing distribution: the Lifaqane.	51

	Page
Changing economy: The Basotho nation.	52
Contact with Europeans.	54
The nation and its land.	54
Agriculture and trade.	60
Migrant labour.	70
The nature of the nation's economic experience.	72
Current conditions.	76
Migrant labour.	76
Agricultural production.	80
Rural income.	83
Conclusions: a peasantry?	88
Chapter three	92
Cultural context.	92
Notes on the Sesotho Landscape.	92
Introduction.	92
The village.	93
Outside the village.	100
Purpose and place.	100
The road.	103
The fields.	103
Rivers.	105
Dongas.	106
Larger settlements.	106
Mountains and wild places.	108
Relations with the landscape: further aspects.	109
Men and women.	109
Naming the landscape.	110

	Page
Emotional attachments.	112
Vernacular geography: Lesotho.	114
Vernacular geography: across the Caledon.	116
Conclusion.	120
Cattle.	121
Introduction.	121
A cattle complex?	122
Love of cattle.	125
Cattle and economy.	128
Cattle and marriage.	132
Three stories.	137
Conclusion.	139
Chapter four	141
Methods and knowledge in Sesotho farming.	141
Introduction.	141
A questionnaire.	144
Land and fields.	144
Rights to fields.	145
Losing fields.	146
Administration.	147
Definitions and measurement.	148
Field shapes and sizes.	152
Fragmentation and accessibility.	154
The crops grown.	161
The farming calendar.	165
Farming methods.	173
Ploughing.	173

Page

Planting. 181

Harrowing. 184

Weeding. 185

Bird scaring. 188

Harvesting and threshing. 189

The Basotho as farmers: yields and profits. 192

Agricultural and environmental knowledge. 200

Soils for farming. 200

Soils for plastering. 207

Crop types. 207

Fertilisers. 223

Pests and remedies. 225

The exploitation of local flora. 230

Conclusion. 235

Chapter five 237

Social networks in farming. 237

Introduction. 237

Sharecropping. 238

Ploughing. 242

Weeding. 249

Problems and delays. 254

Who works with whom? 256

Types of land-holder. 265

Ha Khoeli: an illustration. 267

Conclusion. 273

Chapter six 276

Attitudes to living and farming. 276

Introduction. 276

	Page
Sentence completions: preliminary analysis.	277
Methodology.	277
Most frequent responses.	280
Everyday activities.	287
Hardship.	289
Happiness and optimism.	290
Basotho and their country.	293
An integrated view: four elements.	295
Happiness and hardship.	296
Virtue and imperfections.	299
What sentence completions reveal.	303
Summary.	305
Sentence completions: hierarchical clustering.	306
Methodology.	306
A preliminary division.	309
The Basotho.	310
Particular aspects of life and subsistence.	311
General aspects of life and subsistence.	315
Work, humanity and respect.	318
Women.	323
Past and present.	324
Sesotho world view.	325
Methodology.	325
Hardship.	327
Farming.	329
A peasantry? (2)	330
Attitudes to rural development.	335

	Page
Needs, problems and changes in agriculture.	342
Needs.	342
Changes.	344
Problems.	345
The role of a rural development project.	346
Conclusion.	349
Chapter seven	351
Soil erosion and conservation: The condition of agriculture illustrated.	351
Introduction.	351
The problem and its causes: External observations;	352
The extent of erosion.	352
The causes of erosion.	354
The problem and its causes: Sesotho ideas.	355
Erosion as a problem.	355
A questionnaire survey.	356
Problems in questionnaire investigation.	357
Erosion and the quality of the land.	358
Definitions.	360
Manifestations of erosion and deterioration.	361
Identification of a problem.	363
The causes of erosion.	365
Factors Basotho mention.	365
Problems in questionnaire investigation.	366
Grazing.	367

	Page
The Sesotho grazing system.	367
Transhumance.	369
Knowledge of the local grazing system.	371
Herdboys.	374
The adequacy of grazing resources.	376
Conservation measures.	381
People and erosion.	385
Action against erosion: Government.	388
Early measures.	388
Conservation after the Pim Report.	390
Integrated village-based conservation.	394
Committees.	395
The development of committee organisation.	395
The pitso	398
Conservation committees.	399
Action against erosion: Villagers.	401
Competence and responsibilities.	401
General ability to combat erosion.	401
Ability to undertake specific conservation measures.	403
Local responsibilities for organising conservation.	406
The contribution of a development project.	408
Conservation education.	409
Self-help and payment for conservation labour.	410
Committees.	415
Policy in the Thaba Bosiu Project area.	415

	Page
Six villages.	416
Training and discussion.	417
The committees' performance.	418
Chiefs.	419
Interviews with committee members.	420
Commitment and future prospects.	421
Conclusion.	422
Chapter eight	425
Government intervention in agriculture.	425
Introduction.	425
Local-scale integrated projects.	431
Tebetebeng Pilot Project, 1953-1960.	431
Conservation and irrigation at Thaba Phatšoa.	437
Liphiring integrated project.	443
"Join hands Ratau".	448
Large-scale projects.	455
The winter wheat programme, 1976.	456
The Thaba Bosiu Rural Development Project.	460
The basic agricultural services programme.	464
Conclusion.	468
Chapter nine	471
Conclusion.	471
The context of Sesotho farming.	471
The vernacular view-point.	474
Relevance to rural development.	478

		Page
Appendices		481
1.	Ha Khoeli census.	481
2.	Questionnaire on farming knowledge and techniques.	500
3.	Questionnaire on land-holders' attitudes.	516
4.	Soil conservation questionnaire.	536
5.	Notes on interviews with conservation committee members, July 1977.	547
References		569

LIST OF TABLES

		Page
1. 1.	Long-term precipitation data for lowland district headquarters to 1970 (in mm., for the water year October to September).	42
1. 2.	Frost occurrence.	44
2. 1.	Lesotho: de jure population.	67
2. 2.	Lesotho: imports and exports of maize, sorghum and wheat (in metric tons).	69
2. 3.	Basotho migrant labour and earnings.	71
2. 4.	Lesotho exports 1972.	77
2. 5.	Employment of Basotho labour in South African mines, 1963-1976.	78
2. 6	Distribution of migrant workers per household in the Phuthiatsana and Thaba Tseka areas.	79
2. 7.	Distribution of migrant workers per household in Ha Khoeli.	79
2. 8.	Cash and goods return flows to Lesotho from mine labourers.	79
2. 9.	Lesotho: cultivated area by zone (ha.).	80
2.10.	Lesotho: crop production 1950-1970.	81
2.11.	Lesotho: size of land holdings and numbers of fields held.	81
2.12.	Ha Khoeli: numbers of fields held.	82
2.13.	Percentages of land-holding households reporting possession of agricultural implements.	83
2.14.	Rural household income distribution and source of income in the Phuthiatsana and Thaba Tseka areas(1976).	84
2.15.	Farm household income distribution and source of income in the Thaba Bosiu Project area (1973-74).	86

		Page
3. 1.	Ha Khoeli census: numbers of cattle reported per household.	129
3. 2.	National percentage of farm households reporting ownership of cattle.	129
4. 1.	Lesotho: fragmentation of farm land by size of holding.	156
4. 2.	Lesotho: percentages of the cultivated area devoted to various crops,1950-1970.	162
4. 3.	Lesotho: percentages of the cultivated area devoted to various crops, 1950-1970, by zone.	162
4. 4.	Thaba Bosiu Project area and Ha Khoeli: percentages of the cultivated area devoted to various crops, 1974-1977.	163
4. 5.	The farming calendar for a sample of Ha Khoeli households, 1976 - 1977.	169
4. 6.	The farming calendar for a sample of Ha Khoeli households, 1976-1977, by crop.	170
4. 7.	Planting methods.	182
4. 8.	Lesotho: yields of the principal crops, 1949/50-1970, in kg/ha.	193
4. 9.	Thaba Bosiu Project area: yields of the principal crops, 1973-1975 in kg/ha.	194
4.10.	Phuthiatsana Irrigation Project area: yields of maize, sorghum and beans, crop year 1975/76 in Kg/ha.	194
4.11.	Khomokhoana Project area: yields of maize, sorghum, wheat and beans, crop years 1974/75 - 1975/76 in kg/ha.	195
4.12.	Senqu Project area: yields of maize, sorghum and beans, crop years 1974/75 - 1975/76 in kg/ha.	195
4.13.	Thaba Bosiu Project area: gross margins for the principal crops, 1973-1977 in rand/ha.	197
4.14.	Phuthiatsana Irrigation Project area: gross margins for maize, sorghum and beans, crop year 1975/76 in rand/ha.	197

		Page
4.15.	Khomokhoana Project area: gross margins for maize, sorghum, wheat and beans, crop years 1974/75 - 1975/76.	197
4.16.	Senqu Project area: gross margins for the principal crops, crop year 1974/75, in rand/ha.	197
4.17.	Sesotho soil classification as recorded in the Thaba Bosiu Project area.	202
4.18.	Six Ha Khoeli soil types.	206
4.19.	Maize varieties.	209
4.20.	Varieties of maize most commonly preferred (central lowlands).	211
4.21.	Varieties of maize most commonly preferred (northern lowlands).	212
4.22.	Sorghum varieties.	214
4.23.	Varieties of sorghum most commonly preferred (central lowlands).	216
4.24.	Varieties of sorghum most commonly preferred (northern lowlands).	216
4.25.	Wheat varieties.	217
4.26.	Varieties of wheat most commonly preferred (central lowlands).	219
4.27.	Varieties of wheat most commonly preferred (northern lowlands).	219
4.28.	Bean varieties.	220
4.29.	Varieties of beans most commonly preferred (central lowlands).	221
4.30.	Varieties of beans most commonly preferred (northern lowlands).	221
4.31.	Pests attacking maize.	225
4.32.	Pests attacking sorghum.	225
4.33.	Pests attacking wheat.	226
4.34.	Pests attacking beans.	226

		Page
4.35.	Some grazing grasses at Ha Khoeli.	231
4.36.	Some Sesotho vegetables eaten in Ha Khoeli.	232
6. 1.	One day I will...	281
6. 2.	I remember that...	281
6. 3.	In the lowlands of Lesotho...	282
6. 4.	I know that...	282
6. 5.	I am sorry that...	282
6. 6.	Lesotho...	283
6. 7.	I am unable to...	283
6. 8.	I believe that...	283
6. 9.	I hope that...	284
6.10.	They have told me that...	284
6.11.	I want to...	284
6.12.	In the old times...	285
6.13.	I am able to...	285
6.14.	In the future...	285
6.15.	The Basotho...	286
6.16.	Things needed for good farming.	343
6.17.	Agricultural changes desired.	344
6.18.	Percentage of respondents mentioning 'progressive' changes.	345
6.19.	Problems faced in farming.	346
6.20.	Activities of the Thaba Bosiu Project named by respondents.	347
6.21.	Other activities respondents wish the Thaba Bosiu Project to undertake.	347

		Page
7. 1.	"What are the changes on the land that you have noticed?"	359
7. 2.	Types of erosion mentioned.	362
7. 3.	"In what other ways does the land become poorer?"	362
7. 4.	"Why do dongas form and why does the land become poorer?"	365
7. 5.	Transhumance, 1976-7.	370
7. 6.	Reasons for not using cattle posts.	371
7. 7.	Knowledge of the identity of grazing controllers.	372
7. 8.	Functions of grazing controllers.	373
7. 9.	Ages of herdboys.	374
7.10.	"Do herdboys understand the reserved grazing laws?"	374
7.11.	Damage caused by herdboys.	375
7.12.	How herdboys can be taught to prevent damage.	376
7.13.	Adequacy of villages' grazing resources.	377
7.14.	Adequacy of the Ha Khoeli grazing resources.	377
7.15.	Measures for the prevention of dongas.	383
7.16.	Other measures for improving the quality of the land.	384
7.17.	"In what ways do people cause erosion and damage to the land?"	385
7.18.	Ability of the Basotho to combat erosion.	402
7.19.	Measures for the prevention of dongas and ability to carry them out.	404
7.20.	Other measures for improving the quality of the land and ability to carry them out.	404

		Page
7.21.	Responsibility for combating erosion and improving the land.	406
7.22.	Responsibility for organising conservation work in a village.	407
7.23.	How the Project should help in conservation work.	409
7.24.	"Should the people be paid for conservation work?"	410
7.25.	Why people should be paid for conservation work.	411

LIST OF FIGURES

1. 1.	Lesotho in southern Africa.	23
1. 2.	Lesotho.	25
1. 3.	Thaba Bosiu Rural Development Project area.	30
1. 4.	Lesotho: zones.	35
1. 5.	Lesotho: rainfall.	43
4. 1.	Ha Khoeli. (back pocket).	
4. 2.	Ploughing by the hoto method	175
4. 3.	Ploughing by the hare method.	176
5.11.	The farming networks of 30 Ha Khoeli households. (back pocket).	
6. 1.	Sentence completions: hierarchical clustering.	308

CHAPTER ONE

INTRODUCTION

Lesotho

The kingdom of Lesotho is a sovereign enclave in the Republic of South Africa (see Figure 1.1). It has an area of 30,355 sq.km., much of which is taken up by the central massif of southern Africa. Conditions in the mountain zone differ significantly from those of the narrow areas of lowlands and foothills in the north and west of the country. It is with these latter zones, where much of the population is concentrated, that this study is concerned.

The population of Lesotho is recorded in two forms. The de facto figure refers to the number of people in the country at the census date. The de jure population includes the many citizens who are absent abroad at that time. In 1976 the de jure population was 1,216,833; the de facto figure was 1,064,210. This gave a de jure population density of 40.01 per sq.km.; but as so much of the country is mountainous and sparsely populated, a more relevant figure for this study of farming in the lowlands and foothills is the de jure population density on arable land. For the nation as a whole this was 330.2 per sq.km. in 1976; in the lowlands it was approximately 365 per sq.km., and in the foothills approximately 162 per sq.km. In these two zones together the density was approximately 296 per sq.km. The population of the rapidly expanding capital, Maseru, (see Figure 1.2) was estimated in 1976 to be 48,115; the other centres are much

Fig. 1.1 Lesotho in southern Africa

smaller.

The great majority of the Basotho people live in rural villages. Socially and in law they constitute a nation under a king, who is descended from the ruler who founded Lesotho in the nineteenth century. Under severe pressure from invading Boers, this first king appealed for British protection, which was awarded in 1868. The British resisted South African demands for the incorporation of this geographically anomalous enclave, and granted Lesotho independence in 1966. Following common practice in colonial possessions, they had fostered much of the indigenous structure of government. Lesotho has therefore retained a king as head of state. The country is divided beneath him into 22 wards, and there is a hierarchy of chiefs and headmen below the ward chiefs who play an important part in local government and the administration of justice. The government of Lesotho, however, is now controlled by the Basutoland National Party, one of three political parties which emerged in the years leading up to independence. The B.N.P. came to power in the first general election of 1965 and has retained it since, a state of emergency having been declared during the second general election in 1970.

Lesotho's position in southern Africa has a powerful impact on every aspect of life in the kingdom. Political relations with South Africa are poor, and Lesotho's criticisms of the Pretoria regime have become strident in recent years. Although the country is powerless against South Africa, some benefits have lately begun to flow from its unenviable political position. As the problems of southern Africa gain prominence

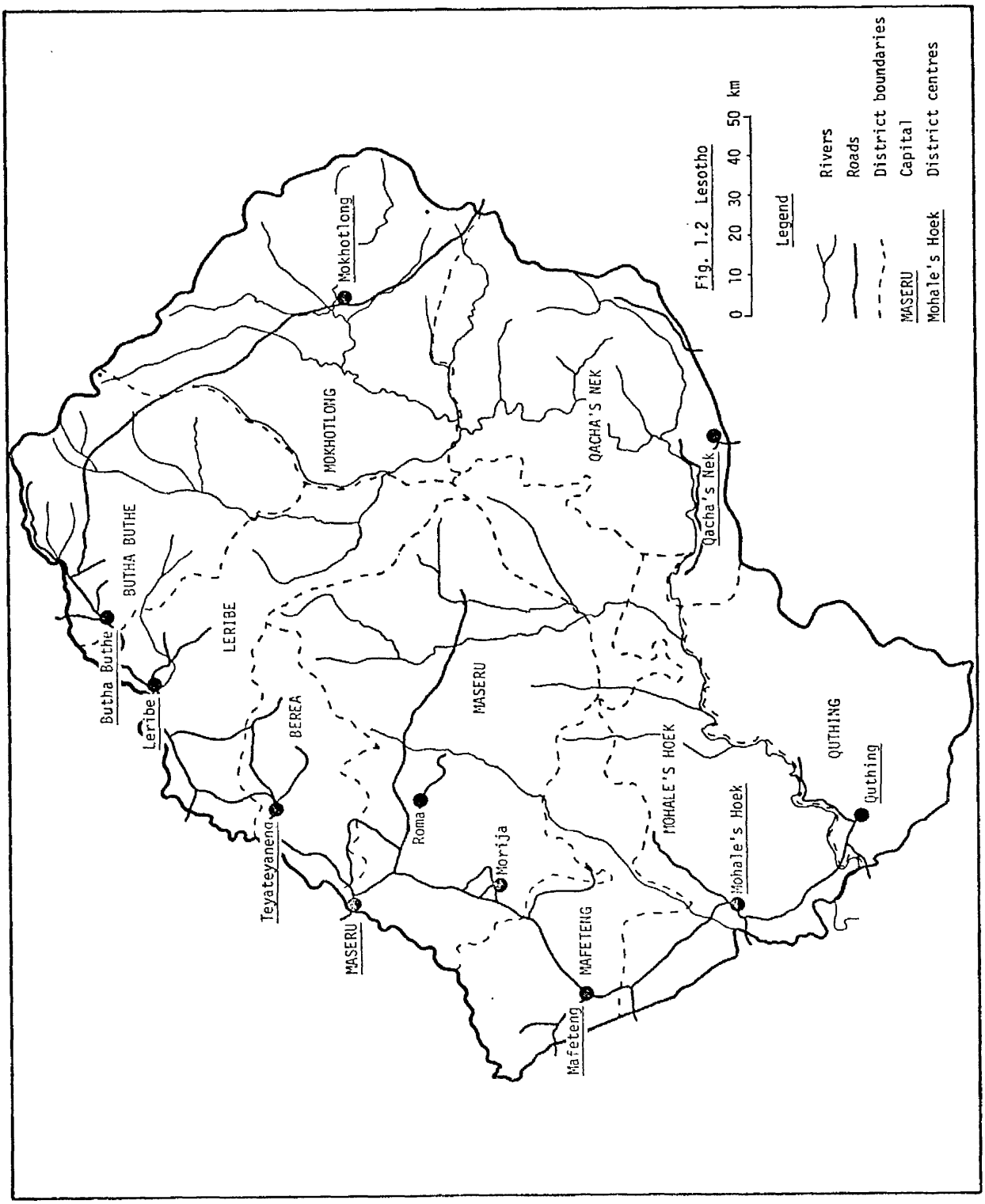
Fig. 1.2 Lesotho
0 10 20 30 40 50 km
Legend
Rivers
Roads
District boundaries
MASERU Capital
Mohale's Hoek District centres
Butha Buthe
Leribe
Teyateyaneng
MASERU
Mafeteng
Roma
Morija
Mohale's Hoek
Qacha's Nek
Quthing
MOKHOTLONG
BUTHA BUTHE
LERIBE
BEREA
MASERU
MAFETENG
MOHALE'S HOEK
QACHA'S NEK
QUTHING

in world affairs, the policies of the major western powers towards the region are coming under increasingly critical scrutiny. These western nations have often found it difficult to avoid charges of hypocrisy in their attempts to deal with both black and white Africa. They have therefore found relief in the case of Lesotho. As this black African state is surrounded by and dependent on South Africa, the west can hope to create a good impression by favouring the hostage with development aid. Although the international assistance received by Lesotho is small in absolute terms, it is now outstripping the country's institutional capacity to absorb it: the main constraint is now the government's ability to create projects on which the aid funds can be spent.

Agriculture is the principal economic activity to which this development aid is directed. Communications and other infrastructure are inadequate and expensive in Lesotho's difficult terrain, and large sums can be absorbed in their improvement. Small deposits of diamonds are being developed, but there are few other natural resources to exploit; the proposals for exporting water and hydro-electricity to South Africa are stalled for largely political reasons (Jones, 1977,27). Although South Africa presents a large market and Lesotho is part of a common customs area with its neighbour (Landell-Mills, 1969), it is difficult to make manufacturing investment in this periphery an attractive economic proposition when established industrial areas already exist at the core (see Jones, 1977, 164-165; Selwyn, 1975). The Lesotho government wishes to promote the prosperity of its citizens; so too, for reasons already stated, do a number of external donors. The livestock

industry has considerable potential, if ecological and logistical constraints can be overcome: some development investment can therefore be devoted to the promotion of meat processing and the export of hides and skins, mohair and wool. But the principal target of the burgeoning development activity in Lesotho must be agriculture. No other economic activity can absorb the funds available and at the same time suggest a prospect of benefit to the population on a significant scale.

Arable land in Lesotho is divided into small, fragmented holdings which are equitably distributed among rural people. The land has been intensively used for over a century and continues to be farmed mainly for subsistence. The staple crops in the lowlands and foothills are maize and sorghum, with wheat more popular in the mountains; but cash cropping, notably of beans, is becoming more common. Few households can live on their farming output; holdings are too small, natural conditions are too poor and the investment of time and effort by land-holders in their crops is too low for agriculture to make more than a supplementary contribution to subsistence. Lesotho depends for its sustenance upon the large difference between its de jure and de facto populations. This group, which represents some 50 per cent of the male labour force and some 10 per cent of the female labour force (Lesotho, 1975, 6) and numbered 152,623 in 1976, migrates to work in South Africa. The principal employer there is the mining industry, for which an average of 112,500 Basotho men were working on short contracts at any one time in 1976 (Lesotho, 1977,45). The earnings of these migrant labourers are the principal component of domestic subsistence, and the absence of so many able-bodied men is a central feature of rural economy and society.

Such is the economic context - more thoroughly examined in Chapter two - to which this analysis of Sesotho farming will refer. The structure and approach of the study will now be outlined.

Research design

Two principal requirements determined the design of fieldwork for this study. First, research in the field should permit as intensive an investigation of vernacular methods and attitudes as possible: for this some knowledge of the Sesotho language was necessary. Secondly, close observation of the workings of agricultural development policy was required if these vernacular observations were to be made relevant to the changes now occurring in the sector. For it was hoped that the results of the study might find some practical application in the design and execution of future work on Lesotho agriculture.

Some time was devoted to the study of Sesotho before fieldwork began, and constant attempts to improve fluency were made as the research was carried out in Lesotho. The value ascribed to research in the vernacular will become clear in the course of this essay. Although only limited proficiency in Sesotho was attained, enquiry at the first of the two levels of focus adopted would have been impossible without it, and it provided many additional insights at the second.

One of the focal areas chosen for this study was encompassed by the other. It is convenient to describe the latter first. The Thaba Bosiu Rural Development Project, which is treated in

more detail in Chapter eight, was an instructive microcosm of much contemporary agricultural change in Lesotho. It covered an area in the central lowlands and foothills largely representative of national conditions in those zones (see Figure 1.3), where the prospects for farming are better than in the drier south but not as favourable as those in the northern lowlands. It was a broad-based rural development project, funded principally by the World Bank and U.S.A.I.D., attempting "to provide a more assured subsistence and to increase the income derived from crop and livestock production" (Thaba Bosiu Project, 1974,1), and its operations were therefore of central relevance to the aims of this study. It began work in 1973, and the fieldwork period (June 1976 to August 1977) approximately coincided with its final stages. Most of its divisions were fully active throughout this time, however, and it was possible to observe many aspects of the local implementation of agricultural development aid.

The attractive research opportunities presented by the activities of the Thaba Bosiu Project were made feasible by the project's administrators, who were favourably disposed towards an investigation of Sesotho farming of the sort proposed. They gave generous support to the fieldwork for this study, which was carried out in daily liaison with the project's Planning and Evaluation unit. In addition to material support for the field surveys carried out, office facilities were provided as needed in Maseru and broad license was given to act as an unpaid member of the staff, observing and enquiring about many of the project's activities. Invaluable experience and information were gained from this participant observation of internationally funded rural development work.

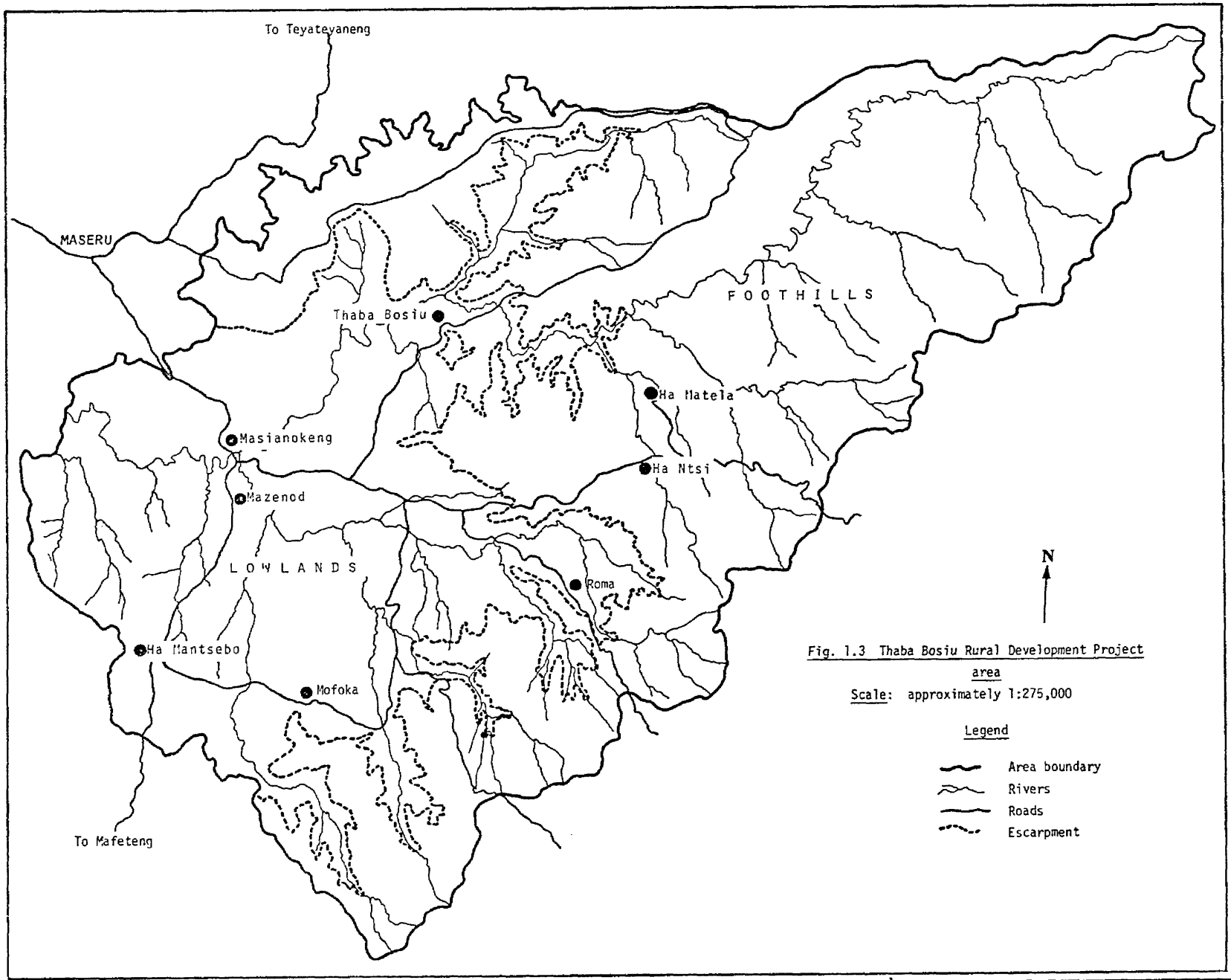

Fig. 1.3 Thaba Bosiu Rural Development Project area

Scale: approximately 1:275,000

Legend

- Area boundary
- Rivers
- Roads
- Escarpment

Although the area of the Thaba Bosiu Project did not include Maseru, its offices were located there. As frequent visits were therefore made to the capital, it was also easy to maintain contacts with the Ministry of Agriculture and to pursue enquiries in other government departments. These investigations, and familiarity with the small 'international development' community in the capital made possible through work with the Thaba Bosiu Project, provided many insights into aid, administration and agricultural development in Lesotho.

It was possible to set these observations in context by contrasting them with the very different research experiences provided by the second focus of attention. This was the village of Ha Khoeli, located in the foothills of the Thaba Bosiu Project area some 45 km. by road from Maseru. The old chieftainess of this community agreed to make available a house in her homestead, and nine months were spent resident there between September 1976 and June 1977. It was decided to ask permission to live at Ha Khoeli for two principal reasons. Firstly, it was hoped to observe at close quarters the interaction between villagers and a development agency (the Thaba Bosiu Project). In the activities of this project such interaction was most intense where soil conservation work and the associated integrated land use planning were being carried out. The search was therefore narrowed to villages where the project intended to begin such conservation work during the fieldwork period. Secondly, it was intended to make a detailed field study of Sesotho knowledge and methods in farming and all other relations with the physical environment. The more physically varied the lands of a village, the wider the research opportunities

they were likely to provide for this purpose. Ha Khoeli's lands in the foothill zone extended from relatively rich, flat fields along a river to the summits of the most westerly range of the Maloti mountains. It was therefore chosen for research in favour of the other communities where the project's conservation division intended to work.

People in Ha Khoeli proved to be friendly and tolerant of the many and various questions put to them: they often extended a welcome to court sessions, meetings, beer huts, parties or simply to the fireside, and a number came to be close acquaintances. The relationship between a visiting European and a black community in southern Africa is a complex interaction of motives and emotions which may be acted out at several levels of sincerity. It is not pretended that every smile encountered in Ha Khoeli was genuine or that a proper understanding of the community and its workings was achieved. But the village proved to be a warm and productive environment in which to research.

Only about half of the Ha Khoeli land allocation area was studied in detail. A map of this part is presented in Figure 4.1 (back pocket). The study area includes four sub-villages strung out on spurs and separated by streams running from the mountain above. The de jure population of this area, as recorded in a census in June 1977, was 122 households totalling 519 people. Its de facto population was 439. From this community a random sample of 30 households was made at the beginning of the study period. These households were used as a core group for research within the community, and were visited each month for a discussion of agricultural and other

matters. In particular, the progress of these families' crops was observed through the season.

Another sort of participant observation was thus made possible by the tolerance of a rural community. Many aspects of Sesotho life were observed and discussed there, and much time was spent in the fields throughout the agricultural season. Research was also carried out in other places. Some journeys were made to the northern and southern lowlands, but the most intensive work was carried out in the Thaba Bosiu Project area. About 150 villages were visited in all parts of this area, particularly during the administration of the questionnaire surveys discussed in Chapters four, six and seven [1]. A somewhat broader view of the condition of Sesotho farming was obtained in this way. The small area of Lesotho often tempts commentators to treat the lowland and foothill zones as internally homogeneous areas. This study will attempt to appraise several aspects of the context of Sesotho farming more sensitively than has commonly been the case. Its first task must be to outline some of the variation in the physical geography of the lowlands and foothills.

Physical conditions

Although arable farming continues to be the principal target of aid for economic production in Lesotho (for reasons outlined above), agriculturists and planners working there are becoming bolder in their private assertions that much of the country is not suited for crops and should be devoted to the raising of livestock. It is hoped to avoid too tedious a catalogue of

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[1] See maps, Appendices II, III, IV.

physical parameters, but the environmental background to this paradoxical situation must briefly be examined. This is particularly necessary, as has been noted, in view of the geographical insensitivity of many non-technical appraisals of Sesotho agriculture.

The lowlands and the foothills The zones with which this study is concerned must first be defined. Constant reference is made to the zonal divisions of Lesotho, but exact knowledge of their origins and distinctive characteristics is less common. They were formally defined by Douglas and Tennant (1952, 13-17) and are shown in Figure 1.4.

> "The zones... are so demarcated that they could be used with advantage in almost any type of census and survey, the boundaries being based on (a) geographical, including geological divisions; (b) divisions between types of farming; (c) divisions between population groups; e.g. headmen's areas. That is to say, lines were followed as far as possible which were common to all three divisions. The latter do in fact coincide very closely in most areas... this of course is historically quite understandable."
> (Douglas and Tennant, 1952, 13-14)

The definition of the zones thus coincides fairly closely with what intuition and superficial observation would suggest. It is illuminating, however, to consider the criteria originally used for distinguishing the Border Lowlands from the Lowland zone:

> "(a) an apparently lower rainfall,
> (b) soil apparently more impoverished; serious erosion,
> (c) larger fields and larger household holdings,
> (d) a greater proportion of fields left uncultivated,
> (e) a greater proportion of land under wheat,
> (f) lower altitude - in parts below 5,000 feet,
> (g) large, relatively unmixed settlements of the Taung clan or tribe, particularly in the southern part."
> (Douglas and Tennant, 1952, 14)

This subdivision of the lowland zone, and the others which have

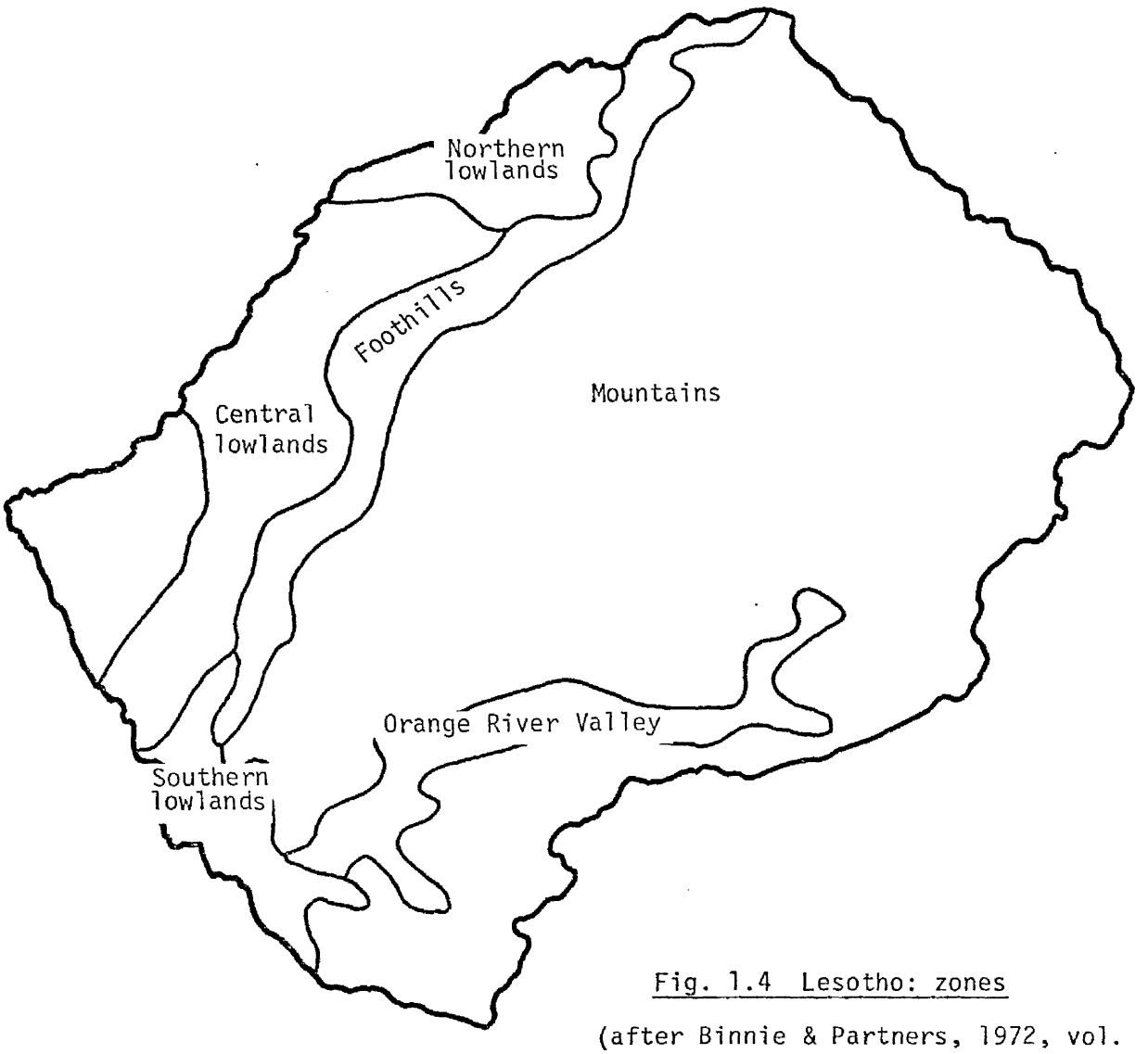

Fig. 1.4 Lesotho: zones

(after Binnie & Partners, 1972, vol. 3, 9)

been proposed (eg. Binnie and Partners, 1972, Vol.3, 9) are less commonly accepted than the primary division of the country into mountains, foothills, lowlands and the Orange River Valley. It is with the second and third of these zones that the present study is concerned. The northern and western edge of the region is clearly marked by the international frontier, partly delineated by the Caledon river. Its eastern border - the line separating the mountain zone from the foothills - is also clearly defined, as Douglas and Tennant point out, by

> "... the main western watershed of the Maluti mountains, which runs from Machachaneng on the Butha-Buthe border to Mokopo in Mohale's Hoek, overlooking the Orange Valley. This ridge, about 150 miles long, is nearly all over 8,000 feet and rises in places to 10,000 feet; no headman's area crosses it."

The foothill zone, much smaller than the lowland area, is easily identifiable in the field: it is separated from the latter region by a prominent Cave sandstone stratum, which forms imposing cliff faces at many points along the zonal interface. The limited foothill areas probably offer better overall prospects for integrated agriculture than the more extensive lowlands.

Topography The bed of massive Cave Sandstone noted above overlies a relatively simple stratigraphy of sandstones, grits and clay shales in descending order. On these rocks is developed a landscape which "is mostly hilly with a series of broad valleys. These valleys consist of slightly convex spurred interfluves passing smoothly into broad, dissected and often severely gullied pediments" (Bawden and Carroll, 1968, 9). Many of the hills occurring in the lowlands are in fact foothill outliers, being capped by Cave Sandstone. It is on the pediments[1]

[1] cf. Binnie and Partners, 1972, vol. 3, 17.

and interfluves between these outcrops and the commonly gullied drainage lines, that fields are located. Throughout the lowlands the agricultural land is generally a waste mantle of 'pedisediments'. Towards the west, however, the outliers are less frequent: "... the landscape is less variegated and its wide and gently undulating plains are very similar to those in the adjacent Free State" (Bawden and Carroll, 1968, 9). Towards the south the landscape alters in the reverse direction and becomes topographically and geologically more complex. The southern lowlands are described by Binnie and Partners (1972, vol. 3, 10) as "... a confusion of severely dissected foothill remnants separated by Lowland river valleys". An intermediate landscape occurs in the central and northern lowlands, with gentler alluvial topography more extensively developed along the Caledon river in the latter area until the zone narrows and terminates in the Butha-Buthe district. Although there is severe and extensive erosion in the lowlands, there are large areas of topography suitable for agriculture in this zone, declining as a proportion of the whole from north to south. In the foothills topography is a greater constraint upon agriculture, but between the steep slopes and the many deeply dissected drainage lines lie small areas of rolling land with less eroded and often better structured soils than are common elsewhere. A notable example is the Theko Plateau in the Thaba Bosiu Project area.

Soils The soils of Lesotho do not have great agricultural potential. Many are highly erodible, and natural rates of removal have been accelerated by human activity. Severe erosion is manifested throughout the lowlands, but is probably most extensive in the south. It affects a much smaller proportion of the foothill area. The most useful national summary of soil

conditions to which reference can be made is that of Binnie and Partners (1972, Vo. 3, 25-51) [1]. More recently a national classification [2], based on the U.S.Seventh Approximation, has been devised by the Ministry of Agriculture. This has been used to map the Thaba Bosiu Project area, but has not yet been applied in detail to the whole of the lowlands and foothills. Most of the series and classes defined there correspond closely with those outlined by Binnie and Partners: it is therefore still relevant to quote the latter's summary of geographical variation in soil types within the lowland zone. They tabulate the soils described as follows, according to the percentage of each sub-zone they cover:

NIL
VL Very limited (under 1%)
LIM Limited (approximately 1 - 5%)
MOD Moderate (approximately 5 - 15%)
EXT Extensive (Over 15%)

Binnie and Partners [3] divide the lowlands into four sub-zones: In the northern lowlands, Caledon C soils (LIM) "occupy the major terraces along the Caledon River" and are "ideally suited for irrigation" (Bevan and McKee, 1975, 13). These are soils of "high fertility and reasonable physical characteristics". Another soil classed as LIM is Khabos, "the richest of the lowland soils", and two classed as MOD, Leribe A and Leribe B, are said to be "amongst the better agricultural soils of the Lowland Province": their physical structure is good, although their nutrient levels are low. Also "MOD" are Mats'aba soils,

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1 See also Bevan and McKee, 1975, 13-18

2 The reconnaissance classification proposed by Carroll and Bascomb (1968) has been criticised by many subsequent workers (see Binnie and Partners, 1972, vol. 3, 19).

3 Quotations in this paragraph are from Binnie and Partners unless otherwise stated.

which are of moderate to high agricultural value. The only EXT soil in the northern lowlands, however, is Berea A: this is "too shallow, infertile, erodible and droughty for agricultural use". In the central lowlands Caledon B and C soils again occur (LIM), as do Khabos (LIM), Mats'aba (MOD), Leribe A (LIM) and Leribe B (MOD). Maseru soils (LIM) are of a duplex type widely observed in the central and western lowlands: "The droughty nature of these soils, combined with the danger of them suddenly being transformed to a waterlogged condition by heavy rainfall, does not commend them for agriculture..." The Berea A type (EXT) again occurs widely in the central lowlands, with Berea B (LIM) being marginally preferable. Berea A and B soils are fownd in the same proportions in the southern lowlands, together with another poor soil, Phechela (LIM): the latter is of high potential when deep enough, but "Where soil structure has been degraded" - as is commonly the case in this zone - "the soil is difficult to use and is often left for grazing". Mats'aba (MOD) probably provides the most extensive areas of reasonable agricultural potential in the southern lowlands. In the Border Lowlands Maseru and Sephula (both EXT) cover large areas. The latter are also duplex soils, but have higher potential than the Maseru association. They offer some irrigation potential in places, but "low upper soil fertility and poor moisture capacity limit their value somewhat". Phechela (LIM) is another unpromising soil, with Caledon B and C and Mats'aba (all LIM) offering slightly higher potential.

The bulk density, or amount of pore space is unfavourable for crop growth in most Lesotho soils. Carroll (1975, 5) writes that "In Lesotho bulk densities range from a favourable

low of 1.3 to 1.5 in the highly-organic, friable mountain soils to an unfavourable high of 2.0 to 2.1 in the compact, duplex soils of the lowlands." He notes that bulk density is too high in most Lesotho lowland soils. Bevan and McKee (1975, 20) reach similar conclusions: presenting a table of bulk density and available moisture capacity for a number of Lesotho soil series, they observe that "Only the Machache series in the... list compares with good agricultural soils outside pediment Africa."

Soil surveyors thus do not offer a favourable assessment of lowland soils' agricultural potential. It must be noted, moreover, that Binnie and Partners define two further classes - Lithosols and Gullied/Elevated - which are of little or no agricultural value and cover 'extensive' (over 15 per cent) areas in all zones. The latter class probably covers particularly large areas in the southern lowlands. Both are also extensive in the foothills; but as was noted earlier, this small zone probably offers more consistently productive soils than any other. Particular reference should be made to the relatively fertile Machache and Mats'aba series.

The indistinct picture emerging from a survey of existing literature on geographical variation in Lesotho soils suggests a decline from the northern lowlands, where there are comparatively extensive areas of agriculturally valuable land, to the south, where such soils are less common. Significantly inferior conditions also prevail in the western or Border lowlands, while the narrow foothill zone probably varies less from north to south, offering a highly dissected strip of moderate potential.

There are restricted opportunities for irrigation on certain soils [1]: elsewhere, as Binnie and Partners (1972, vol 3) note,

> "The major problem for dryland development in the Lowland Province is... to aim at increasing production on a range of fairly light-textured soils, often of shallow depth, while at the same time protecting these soils from erosion."

Foreign agriculturists believe that much of the land presently cultivated in Lesotho should revert to grazing. In the more detailed surveying which has been carried out in the Thaba Bosiu Project area the soil series, sub-classified according to slope, have all been graded into land capability classes which range from I (highest) to VIII (lowest potential). Certain soils in the Fusi, Machache, Matela and Mats'aba series - principally developed in the foothill zone of the Project area - are classed in land capability group II. But as one surveyor remarked, "basically there are no class I soils in Lesotho."

Climate For agriculture the key climatic parameter is rainfall considered in relation to evaporation levels. The topography of Lesotho makes a comparison of simple rainfall means from a chain of stations running north - south inadequate, but reference may be made to these for an initial impression.

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[1] "... the scope for viable irrigation schemes is small. Due to the topography and the location of the rivers and streams, irrigation is not feasible in many areas, and in other areas the soil is unsuitable. The area suitable for large scale irrigation is less than 6,000 hectares"
(Binnie and Partners, 1972, vol.0, 4)

Table 1.1 Long-term precipitation data for lowland district headquarters to 1970 (in mm., for the water year October - September)

	Mean	Std.deviation	Maximum	Minimum
Butha-Buthe	782	158	1327	500
Leribe	831	192	1381	449
Teyateyaneng	714	154	1213	318
Maseru	682	160	1199	373
Mafeteng	739	153	1111	435
Mohale's Hoek	727	160	1103	460
Quthing	786	171	1165	424

(Source: Lesotho 1971)

The isohyet map (Figure 1.5) shows that most of the northern lowlands receive over 700 mm. per annum while large areas of the central, southern and border lowlands receive less than this amount.

Bevan and McKee (1975, 9-10) develop a series of comparisons of climatic potential for crop raising based on the precipitation and evaporation parameters. From this analysis they argue that

> "There is a shortage of rainfall available for crop growth in a large part of Lesotho. The average rainfall in lowland areas, particularly in the south and border lowlands, leaves a substantial water deficit throughout the growing season... 'on average' nowhere in the lowlands is there sufficient rainfall... More northerly and higher areas can sustain moderate crops at .5 x Class A pan evaporation, but on average Maseru and more southerly areas will vary between poor yields and crop failure... in an area like Wepener (1) there will be poor crops to crop failure in more than three years out of every five under dryland farming on most of the land... even in Maseru there will be a high proportion of moderately poor to poor crops... in almost one year in five there will be an absolute failure... both Leribe and Roma are very much better with no real failures and chances of good crops at least one year in five... rainfall adequate for satisfactory crop growth is not to be relied on in large parts of lowland Lesotho. In the areas south of Maseru generally speaking the widespread cultivation of maize should be discouraged... Large areas in southern Lesotho at present cultivated should not be under arable crops at all."

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1 A town just across the frontier from the Border lowlands.

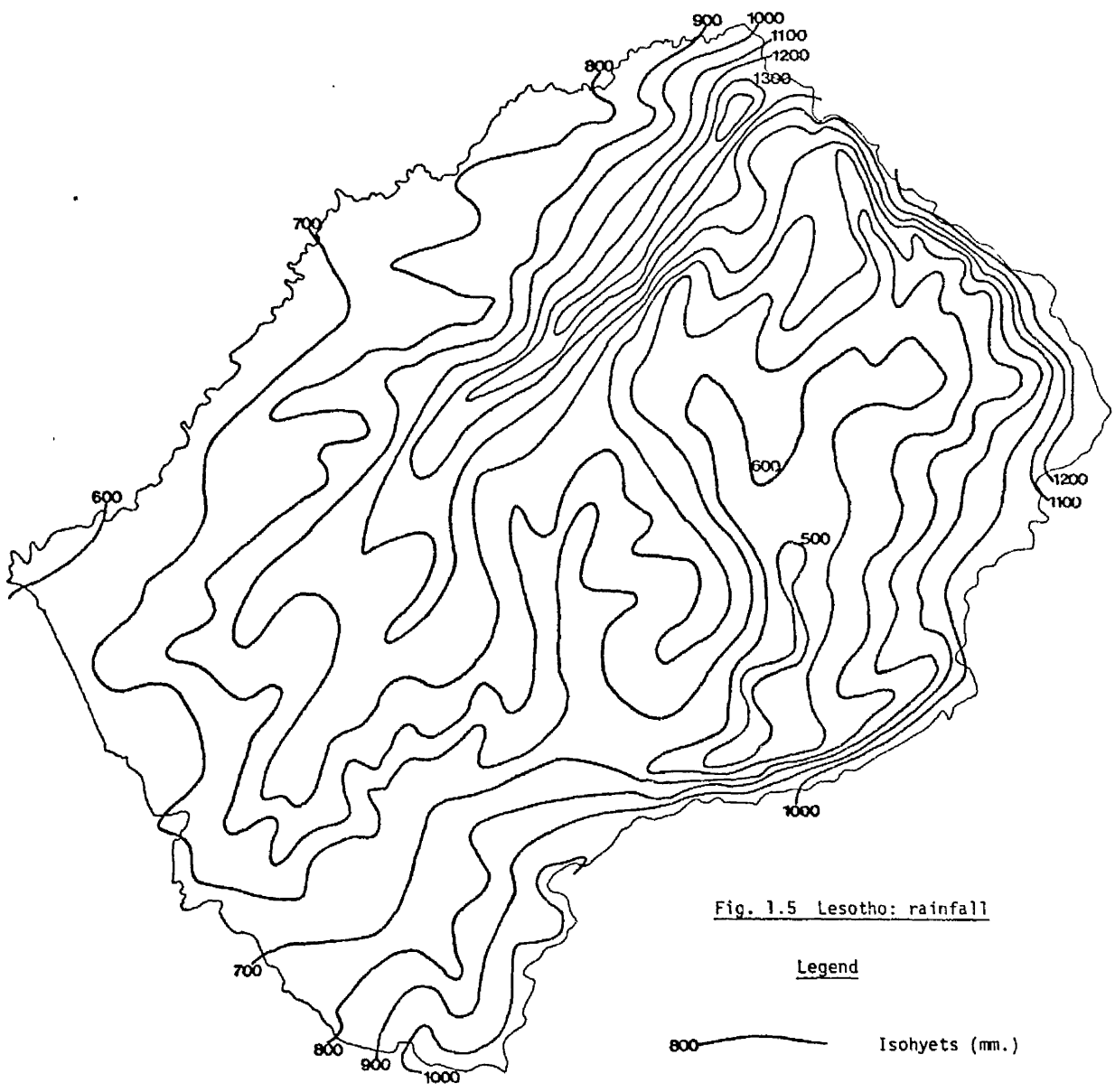

Fig. 1.5 Lesotho: rainfall

Legend

800 Isohyets (mm.)

Source: Hydrological Survey Department, Maseru (unpublished)

Like soils, the combined rainfall/evaporation parameter exhibits a general north to south trend of declining agricultural potential, although the areas offering a fair chance of a good crop appear to be more restricted. The question of maximum temperatures is largely subsumed by the evaporation factor discussed above, but Bevan and McKee (1975, 11) go on to note that

> "Excessive temperatures in January and February can severely damage crops and reduce yields even when average seasonal rainfall totals are favourable... Heat is especially damaging to in-flower beans causing loss of flower and subsequent crop."

Bawden and Carroll (1968, 22) note that high summer temperatures, which cause high transpiration rates, may lead to severe moisture stress in Lesotho crops when the summer is relatively dry. The elevation and latitude of Lesotho also make low winter temperatures and frost a significant constraint on agriculture. Geographical trends in frost occurrence are not easy to establish, as the phenomenon is primarily a function of the micro-environment (eg. altitude, topography and aspect). Frost is a widespread and in many places daily occurrence in the winter months from May to August, however (see Table 1:2): early frosts are particularly damaging to wheat and peaches, and late frosts in October or November often kill or retard growing maize crops. Cold winds are also a significant hazard.

Table 1.2 Frost occurrence

Station	Average		Duration in days	Extreme	
	1st frost	last frost		1st frost	last frost
Mohale's Hoek	11 May	26 Sep	138	6 Apr	1 Dec
Mafeteng	1 May	3 Oct	155	8 Apr	17 Dec
Maseru	18 May	6 Aug	80	2 Apr	4 Oct
Teyateyaneng	2 Jun	24 Aug	83	5 Apr	2 Oct
Leribe	10 May	14 Sep	127	7 Mar	1 Dec
Wepener	1 May	3 Oct	155	8 Mar	17 Dec

(Source: Bevan and McKee, 1975, 9 after Binnie and Partners)

The frequent inadequacy of precipitation totals for agriculture in Lesotho has been noted. Output may also be reduced by the timing of rainfall, which is rarely constant and moderate throughout the growing season. As Bawden and Carroll (1968, 22) observe

> "If the rainy season starts later than usual ploughing is delayed and the risk of early frost damage increased. Drought after planting or at flowering can harm fertilisation and seed development, while drought in the growing season may seriously reduce crop yields or may even cause total failure."

Some crops planted late because of the failure of the rains early in the season may also suffer day-length problems as winter begins (this was a serious difficulty in the Ratau sweet corn experiment discussed in Chapter eight). Excessive or violent precipitation is a further climatic constraint. The former may waterlog fields and delay ploughing early in the season. When it occurs in January it may encourage rust in beans, particularly when they are late planted (Bevan and McKee, 1975, 11). Rain often falls in short, violent storms which accelerate soil erosion and may damage sorghum plants in particular. Hail may be severe, causing especial damage to wheat harvests, peas, late planted beans and sorghum. Certain belts in the lowlands suffer significantly more hail damage than the average: two of these are the Hlotse valley (northern lowlands) and the Tsakholo area (Border lowlands).

Pests and diseases Perhaps the most commonly underestimated constraint on crop production in Lesotho is the severity of damage by pests and diseases:

> "Estimates vary, but it is clear that well over a third of any crop is lost to insects and disease every year in Lesotho." (Bevan and McKee, 1975, 30)

Bevan and McKee (1975, 37-41) give a full catalogue of pests and diseases for the various crops. The common eclipse of this problem by other environmental considerations in much commentary on Sesotho farming may perhaps be explained by the decline in traditional modes of attack against pests and the failure to date of complex, expensive and often dangerous chemical control methods to take their place (see Chapter four).

Although it has been shown that few parts of the lowlands and foothills offer a fair prospect for successful agriculture, and that many of the constraints described are effective throughout the study area, the intra-regional trend of agricultural potential is clear [1]. Farmers are more likely to prosper in the northern lowlands (particularly the Leribe district) than elsewhere, although scattered areas in the central lowlands may offer comparable potential and small pockets in the foothills are also productive. The data presented here make it easy to concur with the frequently expressed opinion that livestock would fare better than crops over much of the central, Border and southern lowlands.

Domestic policy-makers and the designers of foreign aid plans devote much of their attention to agriculture, in the absence of other opportunities for investment and development. Farming thus tends to be propelled towards the centre of the

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1 The accuracy of Bawden and Carroll's (1968) attempt to map this trend must be doubted, particularly in view of the reservations expressed about the soil classification (Carroll and Bascomb, 1967) to which they referred.

economic stage, often being identified as ' the backbone of the (domestic) economy' (the parenthesised qualification being added by the more perceptive commentators). Yet even the most superficial analysis of environmental conditions demonstrates the unsuitability of much of the land for arable farming. It has also been noted that most Basotho farm for subsistence purposes. As those who actually grow the crops, they are of course well aware of the environmental constraints upon their production (see Chapters four and six). The condition of agriculture in Lesotho is therefore curious and its prospects a paradox. It is to these questions that this study is addressed. The first aspect of the problem to which attention must be given is the economic one: the forces which cause the Basotho to farm in such unfavourable conditions.

CHAPTER TWO

THE CIRCUMSTANCES OF SESOTHO FARMING

Introduction

No analysis of Sesotho agriculture can proceed without an appreciation of the economic circumstances in which farming is practised. But as the intention of this study is to comment not only on the condition of Sesotho farming, but also on its prospects in the process of economic change now affecting the nation, the presentation of contemporary statistics will not suffice. The current promotion of change in agriculture by the government and external aid agencies is part of the interaction between Sesotho and western cultures which has moulded the economy and outlook of the nation since it was formed. In seeking to appraise current and future manifestations of this interaction in agriculture, it therefore seems important not merely to investigate the narrow economic parameters in the Basotho's history, but to try to discern the nature of the whole historical process which has moulded the modern land-holder's attitudes to economy and change.

Early history

The old and the new In many Third World countries a discussion of agriculture may refer to the old and the new without too much ambiguity, and in recent studies of African farming tradition has often been adduced as an important and respectable repository of ecological wisdom. In the case of Lesotho, however, these distinctions are far less clear.

For, as will be shown, the Basotho nation has only existed since the first effective interaction between 'old' (indigenous) and 'new' (alien) influences. Moreover, the Basotho's connection with the land area of Lesotho is also relatively modern.

Early distribution The people of Lesotho are commonly referred to as the 'Basotho nation'. This nation is of nineteenth century origins, formed in a politically turbulent period from various groups of Southern Sotho and other people (Sheddick, 1953, 12). Prior to its development Southern Sotho-speaking peoples were scattered in various parts of the southern Highveld, grouped into greater and lesser chiefdoms structured according to lineage-clusters and the 'totems' representing them (Legassick, 1969). Little has been written about the geographical distribution of these chiefdoms before 1800, although Legassick suggests in his map of their distribution at the end of this period (1969, 125) that the important Koena and Fokeng groups were principally located to the north and east of modern Lesotho and that areas of the modern Orange Free State to the north west and west were occupied by San (Bushman) people (see also Damane, 1975, 29). Few Southern Sotho-speakers lived within the boundaries of modern Lesotho, with the exception of the more fertile Caledon valley; the area must have been sparsely populated, with the mountains in particular occupied only by a few San.

Early economy Early missionary accounts must in the main be relied upon for an indication of the economy and lifestyle

of these Southern Sotho peoples prior to European contact, although a little evidence is available from archaeological investigations of the 'Iron Age' of the southern Transvaal and Orange Free State. Both the Sotho-Tswana and the Nguni - the two principal groups into which the Bantu-speaking peoples of the region are divided - exhibit a preoccupation with cattle sometimes referred to as a 'cattle complex' (see Chapter three). In defining characteristics of the Sotho-Tswana group, Van Warmelo (quoted by Legassick, 1969, 86) thus referred among others to "totemism, the possession of cattle, with a cattle complex and extensive cattle terminology...". Whatever the relative contributions to subsistence of herding and cultivation, the former activity is accorded a higher status in these societies, and is far more prominent in their oral history. This complicates the task of establishing the extent and significance of farming among Southern Sotho peoples before European contact.

However great their preoccupation with cattle, all the Bantu-speaking peoples of southern Africa relied to some extent upon the cultivation of crops. This task was of low status and primarily the responsibility of women. It would appear that for the Southern Sotho-speakers crops were of more importance than they were among some other groups, and that men may have participated in agriculture to a greater extent than elsewhere. Indeed, Thompson refers unequivocally to the Southern Sotho of the late eighteenth century as a "farming society" (1975, 11). In advancing an ambitious model of traditional economic systems positing two "modes of adaptation" in the west and east of the region, corresponding with the Nguni

and Sotho-Tswana groups respectively, Sansom (1974) suggests that the ecology of the area occupied by the Sotho-Tswana peoples was unable to support the more usual Bantu economy, where cattle made a large contribution to subsistence:

> "...the Eastern ecology permitted a closer integration of cattle into the tribal economy that could be achieved in the West. For Nguni, milk vied with grain to provide the people with their staple food... Early observers noted that men among the Sotho seemed to work more often with women in the fields than did Nguni males... logic and sparse observations combine to suggest that, because they were more reliant on crops, non-Nguni peoples had to ensure a greater yield of grain per head to provide food." (1974, 150 - 151)

Although Sansom's model may constitute an oversimplified distinction, other evidence suggests that the raising of crops was the principal means of subsistence for the peoples whose descendants now live in Lesotho. Although indications of the nature of agriculture are slight in the archaeological record, Maggs is led to the following conclusions:

> "The Southern Sotho... were cultivators as well as herders, relying for an important part of their diet on vegetable foods, particularly cereals... Agriculture must have been the staple for all settlement types excepting Type R (far west). Direct evidence for this is from the carbonised seeds and seed impressions of sorgum and cucurbit... The method of agriculture would have been the ubiquitous hoe cultivation by women in small gardens... slender evidence suggests that there may have been a regular trade in surplus grain from the better watered areas around the Caledon Valley, in exchange for cattle, salt and perhaps other commodities from the drier region to the north-west." (1974, 450, 518 - 519, 525)

Hunting and gathering supplemented the diet, particularly in times of drought or other hardship (Laydevant, 1952, 19).

Changing distribution: the Lifaqane The first accounts by missionaries and travellers who came into contact with the Southern Sotho provide valuable information about their 'traditional' mode of subsistence. By the time these Europeans appeared, however, this way of life was being seriously

disrupted in the turbulence of the Lifaqane wars, a long series of clashes and political realignments developing from (though not solely caused by) the emergence of the powerful, militant kingdom of the Zulus (Omer-Cooper, 1969, 207). From 1822 onwards, the scattered Southern Sotho peoples suffered invasions and attack by many groups set in motion by the military events to the east. Lye (1969, 191) suggests that by this date Southern Sotho peoples had settled in many places in the lowlands of modern Lesotho and to the west in what is now The Orange Free State. In the turmoil of the Lifaqane period much political and military manoeuvring took place as the more powerful of the Sotho leaders attempted to create alliances which could withstand the pressures of the time, often establishing themselves on easily defensible mesas for this purpose. Pre-eminent among these leaders was Moshoeshoe, a minor headman of the Koena lineage cluster who, after gathering a following at such a mountain fortress in his home area near Butha Buthe, emigrated to a more secure refuge at Thaba Bosiu. From here he exercised a combination of military skill, astute diplomacy and political acumen which enabled him to extend his sway over a large area and draw together the allegiances of Southern Sotho and other peoples under him into the Basotho nation (Thompson, 1975, Sanders, 1975).

Changing economy: the Basotho nation Moshoeshoe had been established at Thaba Bosiu for nine years when, in 1833, the first European missionaries, Arbousset and Casalis, came at his request to work among his people. Casalis in particular was to influence the consolidation and defence of the Basotho nation as a trusted adviser to Moshoeshoe. The mode of

subsistence the missionaries encountered was described by Casalis (1861, 153 - 173), who stressed the importance of cattle but also mentioned some agricultural practices: sorghum (Kaffir corn) was the staple, with maize a more recent introduction from the coast. Moshoeshoe himself provided a more concise account in a letter of 1845, placing the Basotho's love for cattle in context:

> "My people are not entirely a pastoral people, they depend in a great measure on the cultivation of the soil. We cultivate millet or Kaffir corn, maize, sweet reed, pumpkins, melons, beans and tobacco. The missionaries have introduced among us European corn; potatoes and fruit trees we begin to appreciate greatly. Our staple produce is the Kaffir corn, which we cultivate to a great extent." (Theal, 1964, 85).

The importance of crop-raising to the Southern Sotho peoples at the time of the formation of the Basotho nation is indicated by the many references in accounts of the Lifaqane to strategies designed to permit the harvesting of crops (Sanders, 1975, 30). Describing the first schools established by the missionaries in the 1830s, the traveller Backhouse noted the importance of farming in another sphere of life: "The schools could only be kept up for two periods of the year, of but three months each, on account of the agricultural pursuits of the population" (1844, 367). Another missionary, Maeder, wrote at Morija in 1853 that

> "The inhabitants (of Basutoland) reap wheat and millet in abundance. Besides, they have fields of maize, of sugar cane, potatoes, beans, and various other vegetables of lesser value. Tobacco, of which they are very fond, also grows in their country. A great part of their time is devoted to agriculture and, as it is only exceptionally that they employ the plough, and they are still reduced to turning the soil with the hoe, they have a great deal of labour to perform. They are now beginning to plant fruit trees and vines everywhere."
>
> (Germond, 1967, 453 - 454)

The arrival of missionaries among the Basotho was one early aspect of a process of interaction with European culture and economy which has continued to the present. Three series of developments are relevant to an understanding ot the contemporary land-holder's methods and attitudes: military and political events affecting the national status of the Basotho and the extent of the area over which they hold rights; changes in agriculture itself, and the growth of commerce; and the development of a migrant labour system. These will now be considered in turn.

Contact with Europeans

The nation and its land By the middle of the 1830s Moshoeshoe had extricated himself and his people from the worst extremes of the Lifaqane, and in asserting his hegemony had laid the foundations of the Basotho nation. Simultaneously, however, new threats were appearing from a different direction as Europeans began to spread among and adjacent to the Basotho. This development became significant with the arrival of the first Great Trek settlers (1837), and there began a long process of conflict and negotiation between Basotho, Boers and the British who soon found themselves embroiled in the complex and fluid politics of the region. A number of treaties were made and broken in several decades of cattle-raiding and squatting, diplomacy and skirmish, in which the many instances of misunderstanding over concepts of land tenure (exacerbated in places by the desolating effect of the Lifaqane) would provide material for an interesting study. The general trend of these

political and military developments was towards a diminution of the area over which Moshoeshoe could claim control, despite several defeats by Basotho of Boer and English forces. Following the Seqiti War against the Orange Free State (1865), Moshoeshoe's increasingly urgent appeals for British protection were finally recognised. Basutoland became British territory in 1868, and the present boundaries were fixed (with the exception of the southern districts) in the following year. Three features of this process are of particular interest here: the steady diminution of the area to which the Basotho were acknowledged to have a right; the influx of refugees from many parts; and the effect of these political events upon the national identity of the Basotho.

> "...in 1830... it is generally assumed by historians that (Moshoeshoe's) tenure was firm... from Mosenuoe's place at Thaba Nchu to Machache, and from Thupa Khubu to somewhere around Thabana Morena."
> (Capt. R.S.Webb, quoted by Germond, 1967, 184)

The area more or less constantly acknowledging fealty to Moshoeshoe was of greater extent in the 1830s, and even at this early stage he had wide-ranging treaty relationships. The mountain area to the east and south of Machache remained largely empty, however. The Basotho's rights clearly extended far beyond the Caledon, but in acknowledging this in an early demarcation of 1843 Sir George Napier

> "...recognised Moshoeshoe as the ruler of the land in the triangle between the lower Caledon and the Orange where few Africans had ever lived and trekboers were already penetrating... and the lands on the right bank (of the Caledon) where Basotho villages were interspersed with the settlements of the Coloured communities and their Wesleyan missionaries at Platberg, Lesooane, and Mpokoane."
> (Thompson, 1975, 124 - 125)

Although Napier found it expedient to allot to the Basotho some areas where their rights were questionable, this treaty was probably the most just official recognition of the area the Basotho might regard as their own. The many subsequent treaties and demarcations steadily deprived the Basotho of their lands west of the Caledon, as Germond's composite map shows (1967, 569). Thompson describes the situation in the middle 1850s:

> "Two communities were competing for control of the Caledon Valley and the grasslands stretching northwards to the Vaal: BaSotho whose ancestors had occupied most of the area for several generations and Whites who had only begun to cross the Orange River in the previous thirty years; BaSotho who were engaged in agriculture as well as stock farming and Whites who used land almost exclusively for pasture; BaSotho who lived in compact villages and Whites who dispersed in family units, each 'occupying' a 'farm' of several thousand acres."(1975, 219)

Some of the boundary lines imposed on the Basotho when they were on the verge of defeat in the 1860s deprived them not only of all their farmland to the west of the Caledon but of substantial areas to the east; the final borders of the British colony were a slight improvement in this respect. The visitor Boegner offered an eloquent summary of the result of these changes:

> "La frontière qui sépare le Lessouto de L'Etat libre, même là où elle n'est pas tracée par le Caledon, a ceci de particulier qu'elle est très visible, très apparente, sans cependant être marquée par un fossé ou par un mur... dans l'Etat d'Orange, vous croyez être dans un désert; toutes les heures, une maison avec son entourage d'arbres et quelques champs; le reste du pays est occupé par des pâturages. Entrez dans le pays des Bassoutos: ce ne sont que champs et terres cultivées. Il vous semble être dans un jardin où on n'a laissé perdre aucune parcelle de terrain. Les pâturages ne manquent pas, mais déjà on se plaint qu'il n'y en a plus assez pour nourrir le bétail des habitants. Les cultures, dit-on, s'étendent trop. Le fait est qu'elles gagnent chaque année du terrain, si bien que le Lessouto a pu avec justice être appelé le grenier du Sud de l'Afrique. Quand on entre dans ce pays

> où les villages abondent, où mûrissent de magnifiques champs de maïs ou sorgho, on ne peut s'empêcher de faire un retour sur les steppes désolées de l'Etat libre, ou la population est si clairsemée, et l'on se demande ce que deviendrait ce pays si jamais il était couvert de fermes par les Boers ou les gens de la Colonie. Ce qu'il deviendrait est assez clair. L'espace qui nourrit cent familles indigènes n'en nourrirait peut-être pas une des blancs et le pays, au lieu d'inonder la Colonie de grains, suffirait à peine à enrichir une petite quantité d'Européens... (1) (Paris Evangelical Missionary Society, 1912, X-XI; Boegner visited the territory for five months in 1883.)

As Moshoeshoe observed in his War Declaration of 1865, following that of President Brand of the Orange Free State: "...all persons know that my great sin is that I possess a good and fertile country" (Thompson, 1975, 278).

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1 "The border separating Lesotho and the Free State, even where it is not demarcated by the Caledon, is remarkable in being clearly visible, without being marked by any ditch or wall... in the Orange Free State, you think yourself in a desert; once an hour there is a house, surrounded by trees and a few fields; the rest of the country is taken up by grazing. Once into the land of the Basotho, there is nothing but fields and cultivation. You seem to be in a garden where no patch of ground has been wasted. Grazing land is not entirely lacking, but already the complaint is being made that there is not enough to feed the inhabitants' livestock. Cultivation, it is said, is expanding too far. In fact it takes over more land each year, to such an extent that Lesotho has justly been called the granary of South Africa. When one comes into a country where villages are so numerous, where fine fields of maize and sorghum are ripening, one cannot help looking back to the deserted steppes of the Free State, where the population is so sparsely scattered, and asking oneself what would become of this country if ever it were covered by the farms of Boers or people from the (Cape) Colony. What it would become is clear enough. The space that feeds a hundred native families would hardly feed a single white one, and the land, instead of inundating the Colony with grain, would barely suffice to enrich a few Europeans..."

The Basotho nation originally formed as groups of Southern Sotho - speakers and numbers of Nguni grouped together under Moshoeshoe into a polity capable of withstanding the pressures of the Lifaqane. Although some chiefdoms did not alter their place of residence when pledging loyalty to the king, many people did gather towards his residence at Thaba Bosiu in the first of many movements of refugees which were to increase the density of population inside Lesotho. In the decades of conflict with Europeans which followed, many other people fled into Lesotho. Thompson notes, for example, that "...during each of the wars between the Cape Colony and the Xhosa and Thembu chiefdoms (1834-5, 1846-7, 1850-3), southern Nguni fugitives fled to Moorosi's country in the Orange valley or deeper into Lesotho" (1975, 173; see also Germond, 1967, 471). Very large numbers of Southern Sotho escaped from the Lifaqane into the Cape Colony, and subsequently returned to swell the numbers of Moshoeshoe's kingdom (Lye, 1969, 201 - 205). At the time the boundaries of the British colony were fixed some Basotho were forced to remove to new homes within them, notably the Taung of Moletsane (Atmore, 1969, 296 - 297). Lesotho continued to attract refugees well into the twentieth century, however, as black people outside the borders escaped increasing harrassment and deprivation. Many Basotho continued to farm nominally European land in the Orange Free State for decades, and the process of their removal to Lesotho was a gradual one, mentioned in a number of colonial reports in the late nineteenth century. Various Nguni groups also moved to Lesotho from the south. There were influxes of refugees in consequence of specific events, also, for example the annexation by the Orange Free State of the Barolong area at Thaba Nchu in 1884.

General Louis Botha told the Transvaal Labour Commission that "The Plakkers' Wet (Squatter's Law of 1895) was enforced in the Free State. I was an inhabitant there, and thousands of Kaffirs living in the Free State trekked into Basutoland" (Transvaal, 1904, 506). Many escaped into Basutoland during the Boer War [1]. Subsequent legislation to limit the rights of Africans in South Africa induced further emigration, particularly in response to the Native Land Act of 1913 when many Africans were expelled from the land upon which they had been living. Plaatje (1916, 103 - 105) described "these exiles swarming towards the Basuto border, some of them with their belongings on their heads, driving their emaciated flocks attenuated by starvation and the cold" and noted that "the influx of outsiders into Basutoland could not continue at the rate it was then proceeding without seriously complicating the land question in Basutoland, where chieftains are constantly quarrelling over small patches of arable land."

It has been noted that the Basotho nation first emerged as a fluid series of political alliances between Moshoeshoe and other chiefs in response to the pressures of the Lifaqane. Such a polity was a radical departure from the fissiparious structures into which the Southern Sotho were organised before this period, and would subsequently have disintegrated had other events not intervened. For the British, in their attempts to control the conflicts between Basotho and Boers, it was most convenient to find one leader whose authority they might recognise and with whom they might deal. Relations between them and the

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[1] I am indebted to Mr Paul Spray for some of these observations.

Basotho through Moshoeshoe often implied a far greater unity in the 'nation' than in fact existed. The relationship between the British and the chief, inspired of course by the latter's great political skill, was thus responsible for the consolidation of a national identity among the Basotho. This identity was further developed during the period of British colonial rule when many features of 'indigenous' administration were consolidated and institutionalised (Perham, 1934). In conclusion it should be noted, therefore, that the Basotho nation is a relatively recent political development and that the sense of nationality shared by the inhabitants of Lesotho today, to which frequent reference will be made later in this study, has its roots in the political experiences of their forefathers.

Agriculture and trade The elements of the Sesotho mode of subsistence before the Lifaqane have been described. Although these wars and the turmoil of subsequent decades frequently disrupted agricultural production, the Basotho remained assiduous cultivators whenever possible. Changes in the agriculture and economy of the Basotho are far less well documented than political and military events; as Thompson points out (1975, 190, f.n.), there is an urgent need for work to be done on the economic history of Lesotho [1]. It is well known, however, that during the nineteenth century the missionaries had a profound effect upon Sesotho farming (Germond, 1967, 326), as was acknowledged by Moshoeshoe in the letter quoted above. They introduced some innovations directly, and fostered the adoption

[1] I am deeply indebted to Mr Paul Spray for allowing me to consult his unpublished paper (1975) on this subject. Dr R.C.Germond's collection of observations by missionaries and others, Chronicles of Basutoland (1967), is also an invaluable work of reference.

of others which were diffusing through the area as a result of European contact. Mission stations were therefore centres of agricultural innovation, particularly as converts were more receptive to such new ideas and because traders who could supply new implements and seeds or purchase crops tended to establish themselves at these places. Three changes of particular significance may be identified.

Firstly, the cultivation of maize became more popular among the Basotho. Casalis notes that it was a recent introduction (1861, 168). Ellenberger writes that "...the Bataung and the Lihoya had never seen mealies (maize) until they met the Batlokoa during the Lifaqane" (1912, 54), and Sanders suggests that this crop reached the Caledon valley only in the 1820s (1975, 9, f.n.).

Secondly, Basotho began to grow wheat; this was a later introduction than maize, deriving from nineteenth century contact with Europeans in the interior rather than African trade with the coast. (The Sesotho koro, wheat, comes from the Dutch koring.) Casalis noted the "extreme purity" of the wheat grown by Basotho (1861, 169), and as early as 1839 Backhouse observed its cultivation at Beersheba:

> "In a walk in the afternoon, I noticed the mode of sowing wheat practised by the Basutu. They render the earth moist by irrigation, scatter the wheat on the surface, and bury it by hoeing up the soil. It was pleasing to see the men and the women labouring together at this work ... The wheat crops are harvested in the 12th mo. and Indian corn is sown immediately after. The Bechuana or Caffer corn is sown at this time, and it ripens in the 5th or 6th mo." (1844, 360)

He also found people growing "a considerable quantity of wheat" at Plaatberg in the same year (1844, 385). The increase in cultivation of wheat was closely connected with the growth of

trade, which will be treated below, and was in turn connected with the influence of the missionaries. Not only did they encourage the adoption of new crops, but they were eager to exert a 'civilising' influence upon Basotho by encouraging trade in such European goods as clothing, cooking utensils and building materials. Wheat as a marketable crop was more attractive than sorghum in this regard (Germond, 1967, 66).

The third significant change was the adoption of the plough. This innovation spread slowly at first: Maeder, quoted above, noted that use of the plough was rare in 1853. Again the new practice spread from mission stations (Widdicombe, 1895). The rate of innovation appears to have accelerated substantially in the late 1860s and 1870s after peace had been imposed: in a history of a firm of traders, Walton (1958, 16) suggests that

> "The whole economy of the Basotho changed in the space of a few years and in 1872 the Governor's Agent reported that for the first time the hut tax had been paid entirely in cash. 'Not a single head of cattle or muid of grain was collected.' The primitive hoe cultivation was replaced by ploughing and 3,700 ploughs were sold during a period of five years... In 1871 there were 20 trading stations in Basutoland... and during the year 1873 the number increased to 50 to supply the growing requirements of the Basotho. In the same year 2,000 bales of wool and 100,000 bags of grain were exported from these stations."

One immediate reason for the Basotho's rapid adoption of the plough was that, provided cattle were available to pull it, the implement made the turning of the soil easier and more thorough - at a time when the population to be fed, and the cultivated area, were increasing. As will be shown below, however, Basotho men were beginning to migrate to work at the same time as the plough became popular; and exports of grain to the expanding markets in the mining areas were beginning to boom. Despite its demand upon male labour and its relegation of women to

weeding and harvesting only [1], the new method of cultivation promoted both aspects of this rapid incorporation into the regional economy. With the plough, men with the cattle available could till their fields expeditiously and then travel to work elsewhere for a season; and it was possible to cultivate larger areas more efficiently, creating a surplus for export. As Sesotho farming filled out in the arable areas, the plough also had an effect on the pattern of land-holding: as will be argued in Chapter four, it promoted a generally rectangular shape of field, which-together with the increase in the area farmed - probably had a marked effect on the appearance of the lowland landscape at this time. The adoption of the plough thus permitted a radical change in the economy of the Basotho as they began to trade in grain. As will be shown, however, this trade had begun some time earlier.

The Basotho took the opportunity to barter with Europeans in crops and other commodities as soon as it arose. As has been noted, these Europeans were predominantly pastoral, and preferred to puchase grain from Africans. A Dutchman named Fourie reported that in 1827 he had met "Kaffirs" near the confluence of the Caledon and Orange rivers. "These came down from above the Caledon with pack oxen to trade among the white people with corn" (Theal, 1964, 438). The people Backhouse met at Plaatberg in 1839 were selling their wheat "to the Boers, who have emigrated into the adjacent country" (1844, 385).

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1 Although, as has been noted, Basotho men traditionally did more agricultural work than their counterparts in other Bantu-speaking societies; and, as Ashton (1967, 124) found in the 1930s, women and girls sometimes ploughed in the absence of their menfolk.

Thompson writes that

> "As early as 1838, after several good harvests, Moshoeshoe had enough grain stored on Thaba Bosiu... to last seven or eight years, and other chiefs had nearly as much; and Africans and Coloured people were travelling to Lesotho to obtain grain. Whites who settled in the southern high veld also became largely dependent on Moshoeshoe's people for their grain supplies. Governor Cathcart (in 1853) found that 'his people grow almost all the corn that is used in the (Orange River) Sovereignty, where the burghers rear only cattle, which they exchange for his grain.' " (1975, 190)

Of the same period Casalis stated that

> "It is with the white man that the natives transact the most profitable business. In this respect the Basutos are particularly favoured by the fertility of their country. Their corn finds a ready sale at all the markets: and if the means of transporting it can be facilitated, it will become an important branch of commerce." (1861, 170)

In the mid-nineteenth century the Basotho, encouraged by their missionaries, thus responded with alacrity to commercial opportunities for trade in the new crop, wheat. This was in spite of the political and military tribulations which they experienced at this time. By 1863, Basutoland was being described as "the granary of the Free State and of part of the (Cape) Colony" (Germond, 1967, 459), and Preen wrote at Morija in 1867 that "the Basuto annually sell an enormous quantity of wheat and maize. They all wish to possess a plough" (Germond, 1967, 461).

Two events at the end of the 1860s opened a new era of commercial agriculture for the Basotho, however. The imposition of British rule established more stable conditions for cultivation and trade. Secondly, diamond mining began at Kimberley in 1867. A large new market rapidly developed for the produce of the Basotho, and after recovering from the

ravages of the Seqiti war the latter vigorously supplied it. Conditions for trade were particularly good in the 1870s, when Col. Griffith reported from Maseru that

> "The material progress is no less marked than the political. Hundreds of wagons criss-cross the country in every direction, collecting the grain which it produces in order to import it to the Free State and the diamond mines. The growing of cereals has progressed apace and the plough everywhere displaced the Kaffir hoe. On every side one meets flocks of sheep and herds of cattle which had totally disappeared during the (Seqiti) war. Stone cottages are beginning to oust the primitive native hut." (Report [1], 1874, 23)

Maize as well as wheat was an important export during this era of prosperous agriculture. Wheat suffered less in Basutoland than elsewhere in dry years, and during the last quarter of the nineteenth century the country was commonly called "the granary of South Africa". A report in the Grahamstown Journal of 1879 stated that "The valleys and the hill-sides are black with cattle and in every direction fields of maize and wheat stretch as far as the eye can reach" (Germond, 1967, 463); and at the end of this period Drysdale wrote that

> "Although the surface of the country consists 'chiefly of chasms and crags', it has been called the Granary of South Africa, as every available piece of ground is cultivated. On entering Basutoland from the Orange River Colony, one is much struck by the fertility of the valleys..." (1903, 209)

Throughout this period, and indeed well into the twentieth century, the Basotho were actively engaged in farming for export. After the 1870s, however, their production was hindered by a number of problems. Some of them were natural; most emanated from the Europeans with whom they traded. Their fierce resistance to the insensitive policies of the short-lived Cape

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[1] Annual colonial report for Basutoland.

administration, in the Gun War of 1880 - 1881, disrupted trade. Simultaneously Basotho suppliers of grain to the Kimberley market began to be undercut by American and Australian growers as a railway line to the city was opened from the coast and the transport geography of the region radically altered. But despite transport difficulties and frequent droughts, the Basotho continued to export large amounts of grain.

They were also hindered by unfair competition from the Boers, who began at this time to turn to crop raising themselves and demanded protection against their more efficient neighbours. After an ineffective tariff on Basutoland grain in 1875 (Mohapeloa, 1971, 85 - 86), this protectionism had a more serious effect upon Basotho's attempts to exploit the new and promising market provided by the gold fields of the Transvaal from the late 1880s. In 1887 the Transvaal imposed a tariff on all imported grain with the exception of that produced by the Orange Free State, and Basotho suppliers were effectively cut out of the market (Mohapeloa, 1971, 26, 86; Report, 1888, 5). Grain continued to be exported to the Cape Colony, however. It would seem that these difficulties of getting Basutoland grain to the market were compounded by the more open competition of overseas producers, which led to a decrease in the value of the crops the Basotho were able to sell.

One physical problem affecting Basotho's agricultural production, that of drought, has already been mentioned. Severe difficulties were also caused by the rinderpest epidemic of the late 1890s. This probably killed half the cattle in the territory and some reports speak of decimation (Germond, 1967, 476).

This rendered ploughing very difficult and severely hampered transport of grain, Basotho still having to depend on the wagon. Extreme drought also occurred at this time.

A more serious problem, however, had physical or logistic expression but socio-political origins. Partly because of refugee immigration and partly because of the more peaceful and settled conditions which prevailed in Basutoland, the population rose sharply during this period. Although early census figures in particular tended considerably to underestimate the totals, the growth in the population of the territory between 1875 and 1921 may be surmised from the table below.

Table 2.1 Lesotho: de jure population

1875	128,176
1891	218,902
1904	347,731
1911	429,137
1921	545,922

(Source: Leys, 1974, 86)

Internal demand for agricultural produce therefore rose steadily. Connected with the more intensive land use is a trend for which there is little clear written evidence. It is reasonable to infer, however, that yields from some soils began to decline after some decades of annual cultivation, particularly where wheat monoculture had been practised. Moreover, it became increasingly difficult to afford a fallow field with the increase in domestic demand. As early as 1887, P.Germond wrote that "The population is rapidly increasing, the fields are becoming exhausted, the pastures diminishing, stock farming yields more disappointments than profits" (Germond, 1967, 469); three years

later, Ellenberger warned:

> "Soon the country will no longer suffice for its inhabitants: the population increases considerably from year to year; the fallow shrinks in the same proportion and at the same rate as the pastures. More than half the fields have been under continuous cultivation for half a century and are exhausted; the wheat is wilting." (Germond, 1967, 471)

Despite these difficulties and the disruption caused by the Boer War and the First World War, Basutoland retained its role as a substantial exporter of grain until the 1920s. From that period onwards the territory began to import large amounts of food, especially maize. The tendency to import was boosted by the extremely severe drought of 1932 - 33; the subsequent rains caused extensive soil erosion. During the decades up to the Second World War, food imports and exports were approximately balanced over good years and bad years, as is shown by Table 2.2. Although fluctuations in yields and trading figures occurred from year to year, the general trend over the twentieth century is apparent from this table: figures relating to the import and export of maize, the staple food crop, are particularly relevant. Two factors may explain why, in some years, substantial quantities of grain were exported, while imports were also high: in latter years this has principally been true of wheat, while earlier in the century the trade in maize often displayed this feature. Firstly, the statistics for wheat and maize include wheat meal and maize meal for most of the period. Much grain has traditionally been exported to South Africa for milling and has then returned to Lesotho. Secondly, there may have been a tendency for the nation collectively to sell the harvest early, in order to meet pressing requirements for cash, and then to buy back from South Africa later in the season in order to feed itself: no firm data are available on this. It is clear from the table, however, that by

Table 2.2 Lesotho: imports and exports of maize, sorghum and wheat (in metric tons)

		IMPORTS			EXPORTS		
	See note	Maize	Sorghum	Wheat	Maize	Sorghum	Wheat
1895	1,3,8	----- No record -----			7,478	334	13,705
1901	1,2,5,8	----- No record -----			4,528	358	2,260
1905	1,4,8	----- No record -----			7,389	1,019	1,107
1919	5,7	2,306	1,023	183	4,730	2,933	23,238
1925	5,7	3,576	3,151	303	6,447	295	7,584
1930	5,7	5,572	982	470	550	366	11,912
1935	3,7	9,211	4,557	535	735	17	16,428
1938	3,7	2,995	202	734	2,376	4,787	13,860
1945	3,7	6,433	2,624	1,871	17	82	1,746
1950	3,7	5,743	1,007	3,113	1,031	2,360	2,140
1955	3,7	19,902	1,687	4,257	0	922	2,502
1960	3,7	20,983	719	3,854	38	529	3,570
1965	6	21,490	0	11,981	0	7	3,300
1970	6	45,318	2,586	26,789	0	212	29,617

(Sources: 1895 - 1960: annual colonial reports
1965, 1970 : Monyake, 1974, 67)

Notes

1 Imports were probably minimal at this time.

2 The annual report for 1900-1901 notes the deleterious impact of the Boer War on Basutoland trade.

3 Originally recorded in bags, assumed to weigh 200 lbs.

4 Originally recorded in lbs.

5 Originally recorded in muids, assumed to weigh 200 lbs. (Union of South Africa, 1929, 674)

6 Originally recorded in metric tons.

7 'Maize' = maize and maize meal; 'Wheat' = wheat and wheat meal.

8 Report years run from June to June

9 More recent statistics have been recorded in rands, making comparison difficult.

the beginning of the post-war era, the sometime 'granary of South Africa' was in a very different condition.

Migrant labour It has been shown that the opening of the Kimberley diamond fields had a significant effect upon the agriculture of the Basotho. It also introduced a feature of their economy which has proved to be more long-lasting than the export of grain. Basotho began to migrate in order to sell their labour. They had often worked for Europeans before as the Boers spread among them during the previous three decades (Germond, 1967, 250), and continued to offer themselves for employment with white farmers as the latter established themselves and began to raise crops as well as livestock. Wilson (1975, 14) writes, for instance, that

> "The direct impact is hard to measure... but it does seem likely that farming in the Orange Free State... would not have developed in the way it has if the Sotho labour especially for harvesting had not been available."

Migration to work on diamond and subsequently gold mines, however, was to involve far greater numbers and to have a more profound effect upon Sesotho culture and economy. The number of Basotho migrating to work in South Africa has varied in approximately inverse proportion to the prosperity of the domestic agricultural sector, as Table 2.3 indicates.

Table 2.3 Basotho migrant labour and earnings

Date	No. of migrants absent at census date	% of de jure population	No. of labour passes issued	Gold miners' current earnings p.a £	Gold miners' real earnings (1936=100)
1892			20,000	39 (1889)	
1897/8			30,000	29	
1905			95,000	27	
1911	25,000	6	81,000[3]	29	100
1921	47,000	9	69,000	33	69
1936	101,000	15		34	100
1946	127,000[2]	19		44	92
1956	155,000	20		66	89
1966	117,000	12		92	99
1976	154,000	13			

(Sources: 1892 - 1966: Spray, 1975, 10 (quoted by kind permission)
1976: preliminary figures, 1976 census)

Notes

1 Spray's data are drawn from censuses, colonial reports, and Wilson (1972).

2 The 1946 census figure for migrants is interpolated from those for 1936 and 1956.

3 Mean of the figures for 1910 and 1912.

4 The 1976 figure is of Basotho recruited to gold mines and collieries.

For many Basotho in the latter part of the nineteenth century, farming at home was a more attractive proposition than leaving for the mines. When the latter course was taken, however, some domestic subsistence could be maintained from a household's fields. Much of the agricultural labour was provided by women and children, and men might arrange their periods at work so as to be home for the ploughing and planting season. Alternatively, inter-household arrangements of the kind to be discussed in

Chapter five could be made. An analysis of the process whereby 'push' factors (of compulsion or necessity) became more powerful than 'pull' factors (of desire or attraction) in inducing Basotho to migrate to work cannot be attempted here, although some comments will be offered below on the nature of the process of economic change which they underwent. But that migration became a necessity for many at an early stage is indicated by the sharp rise in the number of passes issued to Basotho migrants between 1895 and 1905, a period during which the South African mining industry effectively organised itself substantially to reduce, and then to control wages with the assistance of its new recruiting system (Wilson, 1972, 4). The importance of migrancy in national life at an early stage in the twentieth century may be surmised by examining Tables 2.1 and 2.3 together. By 1936 101,000 people (of whom 79,000 were men) were classed as migrants, forming 15.3 per cent of the national de jure population of 664,000.

It has been shown that the Basotho underwent a change from a nation exporting large quantities of agricultural produce to one incapable of feeding itself, sending most of its able-bodied men to sell their labour in South Africa. Before concluding this historical introduction with a description of current economic conditions, some comment must be made on the role Basotho thus played in the developments which have taken place in the subcontinent over this period.

The nature of the nation's economic experience

The cultural and economic integration of the Basotho people in the regional structure of southern Africa will be stressed at

many points in this study, as it is crucial in determining the condition and prospects of their agriculture. A proper understanding of this integration must be grounded in an appreciation of the historical processes which caused it. Again the dearth of economic historiography for Lesotho makes it impossible to offer an authoritative analysis of the subject. The principal features of these processes may be discussed, however.

The forces influencing the economic condition of the Basotho were and are those affecting Africans throughout the subcontinent. Moulded by the racial values of the Europeans who - as has been shown in the case of the Basotho - gained political control in the nineteenth century, these forces deprived the Africans first of the means of competitive agricultural production, and then of subsistence. Africans were thus forced to enter the labour market and support the developing metropolitan economy although, as has been noted, wages were strictly controlled from an early date. Their subordinate status was assured, again from an early stage in the process, by the assertion that they participated in the metropolitan economy only as temporary visitors. The Transvaal Local Government Commission stated in 1921 that

> "The native should only be allowed to enter the urban areas, which are essentially the white man's creation, when he is willing to enter and to minister to the needs of the white man and should depart therefrom when he ceases so to minister." (Wilson, 1972, 3)

This assertion conveniently denied African rights to political involvement in the economy which they served. The assumption that the migrant labourer retained some subsistence base in his domestic agriculture sustained the policy of paying very low

wages to him (see Table 2.3). Within the Republic of South Africa these policies found formal expression in the concept of separate development and establishment of homelands or Bantústans (Butler et al, 1977, 24 - 41). In the case of the Basotho, already residing in a British colony, no such structure was required.

Drawing upon research in the Transkei, Bundy (1972) has described the growth of a successful peasant class engaged in commercial farming and consistently undercutting the unprofitable Boer farmers' performance. Subsequently, however, this class was 'proletarianised' into participation in the white economy on the latter's terms by a combination of changes in transport (ie. growth of a railway network that linked white, but not black farmers to the market); manipulation of land tenure laws culminating in the 1913 Land Act; and maintenance of low wage rates on white farms and in the gold and diamond mines in conjunction with the spread of a white trader network to the remotest parts of African areas:

> "All these factors are mutually reinforcing and self-perpetuating in their effects. They all contribute to the diminution of the surplus-generating capacity of the peasant, and to a lessened control by the peasant over the disposal of his surplus; and at the same time that the possibilities for accumulation were thus restricted, the capitalist penetration raised the demand for a cash income. The peasant's increasing involvement in migrant labour depleted the intensity of economic activity in the peasant areas, thereby reproducing the necessity for more migrant labour." (Bundy, 1972, 388)

Although the identification of an African peasantry is always contentious on both economic and historical grounds (Slater,1977), and although detailed evidence for the case of Lesotho is lacking, a process similar to that described by Bundy may be seen to have affected the Basotho. The principal forces shaping that process

have been outlined. Although the imposition of a British colonial boundary around the Basotho nation saved it from disintegration and brought many benefits to its people, it in no way hindered the process of economic underdevelopment which was to take place. The authorities in Basutoland worked for the common welfare of their cause in southern Africa. The resident commissioner there in 1899 wrote that

> "Though for its size and population Basutoland produces a comparatively enormous amount of grain, it has an industry of great economic value to South Africa, viz. the output of native labour. It supplies the sinews of agriculture in the Orange Free State; to a large extent it keeps going railway works, coal mining, the diamond mines at Jagersfontein and Kimberley, the gold mines of the Transvaal and furnishes, in addition, a large amount of domestic services in the surrounding territories... These facts are the best rejoinder to those who argue that Basutoland is a useless native reserve. To others, who urge higher education of the natives, it may be pointed out that to educate them above labour would be a great mistake. Primarily, the native labour industry supplies a dominion want, and secondly it tends to fertilise native territories with cash which is at once diffused for English goods." (Quoted by Leys, 1974, 88 - 89)

"Those who argue that Basutoland is a useless native reserve" were also hostile to economic development within its borders. General Louis Botha, interviewed by the Transvaal Labour Commission, gave articulate expression to these opinions:

> "'You suggest that we should break up such lands as Basutoland, Swaziland and Zululand?' '-Yes, I say that such places are a source of evil. It is building up a kaffir kingdom in the midst of us which is not only bad for the kaffirs themselves, but is a danger to the future...' '(The Basotho) at present occupy the land: we have had evidence before us to the effect that every inch of land in Basutoland is occupied and worked by the kaffirs themselves as their own property?' '-That is just my argument... there was an opening for the kaffirs there. They could go and live there without doing anything.' 'But they do something. They work the whole country; they have a lot of grain?' '-Yes, for themselves.' " (Transvaal, 1904, 506)

Although plans to incorporate Basutoland into the Union of South Africa were to persist for several decades (Halpern, 1965, 52-55), their success would probably have been counter-productive for

their architects both economically and politically. Legislation was enacted in South Africa to control the movements of the African labour force (Wilson, 1972, 3) and, through the homeland policy, to deny it adequate remuneration or political rights in the metropolitan economy. As has been pointed out, the Basotho were already effectively confined to such a homeland. They are consequently debarred from the intense political activity of the present time, and from any possible future adjustment of the rights of residence and political participation in South Africa.

Current conditions

Wilson (1975, 24), noting the deleterious effects of an oscillating labour system upon agriculture in the home areas, summarises the economic status of the Basotho nation today:

> "(In Lesotho) on the one hand there are 80,000 migrant miners each earning an average of nearly R600 in South Africa whilst on the other there is a country which cannot even begin to feed itself although it was once, at the turn of the century, an exporter of food... In other words, after a hundred years of spectacular economic growth in South Africa in which Basotho have participated fully as diamond diggers, gold miners, farm labourers and the rest Lesotho now finds itself with no rights of access to most of the accumulated capital which her citizens helped to form."

Migrant labour Some details of the economic conditions in which Basotho farm will now be presented. No satisfactory empirical analysis can be provided in these notes, which are therefore likely to raise as many questions as they answer, but it is hoped in the space available to provide some descriptive indices of the environment of Sesotho agriculture. As was noted in Chapter one, the de jure population of Lesotho at the 1976 census was 1.2 million (Lesotho, 1977, 8). In 1972 the

country imported good to the total value of R43.0 million, with exports totalling R6.1 million:

Table 2.4 Lesotho exports, 1972

	R million
Live animals	0.9
Foodstuffs	0.7
Wool	2.0
Mohair	1.1
Diamonds	0.2
Other exports	1.1
Total [1]	6.1

(Source: World Bank, 1975, 23)

A trade deficit of R36.9 million was thus incurred, a large proportion of which was reconciled by the remittances of migrant workers. The national gross domestic product in 1973/74 was R84.1 million at market prices, with a further R29.7 million being remitted by migrant workers (Lesotho, 1977, 9). Following the substantial recent increases in mine wages, Van der Wiel (1977, 79) estimates that "the total earnings of the labourers returned to Lesotho in 1976 would have amounted to R85 million, of which R63 million would have been cash and R22 million in kind." Van der Wiel also provides the following figures showing the number of migrants at work in South African mines. He notes that the reduction in 1974 was caused by the unrest in mine compounds during that year.

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1 In this and several subsequent tables, totals and percentages may be slightly incompatible due to rounding.

Table 2.5 Employment of Basotho[1] labour in South African mines, 1963 - 1976

Year	Average monthly employment
1963	58,678
1964	62,653
1965	66,527
1966	80,951
1967	77,414
1968	80,310
1969	83,053
1970	87,384
1971	92,747
1972	98,822
1973	110,477
1974	103,303
1975	112,507
1976	121,062

(Source: Van der Wiel, 1977, 15)

Van der Wiel goes on to quote South African figures which show that there were more Basotho (152,188) than citizens of any other foreign country legally employed in the Republic, and estimates that

> "Lesotho's male labour force between 18 - 60 in 1976 was distributed as follows:
>
> | | |
> |---|---|
> | Employment in agriculture | 28% |
> | Paid employment in Lesotho | 7% |
> | Unproductive | 5% |
> | Employment in South Africa | 60% |
>
> ... of Basotho holding paid jobs approximately nine out of every ten work in the Republic of South Africa" (1977, 16-17).

From enumeration of a total of 1,286 households in a mountain area and a lowland area during 1975 - 6, Van der Wiel drew up the following table showing that 60 per cent of households have one or more workers actively engaged in migrant labour; his table also indicates household size.

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[1] ie. those recorded as citizens of Lesotho

Table 2.6 Distribution of migrant workers per household in the Phuthiatsana and Thaba Tseka areas

	No. of migrants per household							
	0	1	2	3	4	5	6	Total
% of households	40	46	10	3	1	-	-[1]	100
Average household size	4.1	5.3	7.2	9.1	9.3	-	13	5.2

(Source: Van der Wiel, 1977, 86)

A census of the 122 households in the foothill village of Ha Khoeli (see Chapter one and Appendix I) revealed the following distribution:

Table 2.7 Distribution of migrant workers per household in Ha Khoeli

	No. of migrants per household					
	0	1	2	3	4	Total
% of households	44.3	48.4	5.7	0.8	0.8	100
Average household size	3.3	4.6	7.3	13.0	9.0	4.3
No. of households	54	59	7	1	1	122

(Source: Ha Khoeli census, June 1977)

The national income from migrant workers' remittances has already been indicated. From his survey of earnings and expenditure during 1976, Van der Wiel presents the following breakdown of the average mine labourer's spending:

Table 2.8 Cash and goods return flows to Lesotho from mine labourers

Type of flow	Average amount (R)	Percentage
Remittances	240	29
Deferred pay	146	17
Cash in hand	91	11
Goods repatriated	130	15
Money spent in South Africa	232	28
	839	100

(Source: Van der Wiel, 1977, 79)

[1] One household contained six migrants

The extent to which life in Lesotho is sustained by earnings abroad is indicated by these figures.

Agricultural production In Table 2.2 it was shown that Lesotho now has to import a substantial proportion of its food requirements. Monyake (1974, 63 - 64) has presented disturbing data relating to domestic agricultural production. He indicates firstly an overall decline since 1950 in the cultivated area: despite the fact that many people plough virgin land, he observes that far larger areas are "abandoned either as no longer suitable for cultivation or because they were taken up for settlements."

Table 2.9 Lesotho: cultivated area by zone (ha.)

Zone	1950	1960	1970
Lowland	213,000	164,801	178,277
Foothill	45,000	60,267	92,537
Mountain	71,000	95,873	65,664
Orange River Valley	48,000	31,814	31,695
Total	377,000	352,755	368,173

(Source: Monyake, 1974, 63)

He then notes that the number of agricultural holdings has increased during this period from 149,800 to 187,421, and that the average size of these holdings has fallen from 2.5 ha to 1.98 ha. He shows also that total crop production has declined substantially, noting however that weak survey techniques for the first agricultural survey of 1950 probably inflated the crop production figures for that year somewhat.

Table 2.10 Lesotho: crop production 1950-1970 (90kg bags)

Crop	1950	1960	1970
Maize	2,345,000	1,328,905	733,186
Sorghum	543,100	590,484	627,181
Wheat	548,500	634,265	638,267
Total cereals	3,436,600	2,553,654	1,998,634
Beans	91,200	132,545	40,476
Peas	9,200	15,059	49,161
Total pulses	100,400	147,604	89,637
Cereals + pulses	3,537,000	2,701,258	2,088,271

(Source: Monyake, 1974, 64)

None of the census years appears to have received abnormally high rainfall or to have suffered a serious drought.

The 1970 Agricultural Census found that 87.3 per cent of households held land, while 12.7 per cent did not (Lesotho,1972,30). The distribution of land holdings by size and number of fields shown by that census is indicated in Table 2.11.

Table 2.11 Lesotho: size of land holdings[1] and numbers of fields held

Size of holding (acres)	Farm households[2]	%	No.of fields held	Farm households (%)
Without land	2,345	1.25		
Less than 2.00	36,792	19.63	1	30.96
2.00 - 3.99	55,689	29.71	2	37.97
4.00 - 5.99	40,849	21.80	3	25.32
6.00 - 7.99	22,282	11.89	4	3.52
8.00 - 9.99	13,277	7.08	5 and over	2.24
10.00 - 14.99	11,584	6.18		
15.00 and over	4,603	2.46		
Total	187,421	100.00		

(Source: Lesotho, 1972, 37,69)

1 As this data was enumerated and classed in acres, it is not possible to show it in metric units.

2 Defined in terms of land holding and/or ownership of livestock (Lesotho,1972,12)

Of the 122 households enumerated in the 1977 census at Ha Khoeli, 81.1 per cent held land and 18.9 per cent did not. As not all fields there were measured, Table 2.12 indicates only the percentages of households having different numbers of fields. Although the national data in Table 2.11 refers to 'farm households', it can be seen that very few of these in fact had no land and held livestock only. A rough comparison with Table 2.11 is therefore provided from the Ha Khoeli data by the inclusion of the proportions of land-holding households having different numbers of fields.

Table 2.12 Ha Khoeli: numbers of fields held

No.of fields held	% of all households	No.of fields held	% of land-holding households
0	18.9		
1	21.3	1	26.3
2	36.9	2	45.5
3	18.9	3	23.2
4	4.1	4	5.1

(Source: Ha Khoeli census, June1977)

In the national survey of 1970, details of ownership of agricultural implements were recorded. These are presented in Table 2.13 together with comparable data, where available, from Ha Khoeli

Table 2.13 Percentages of land-holding households reporting possession of agricultural implements

Implement	Lesotho (1970) %	Ha Khoeli (1977) %
Plough	30.91	31.31
Harrow	9.77	9.09
Planter	9.56	5.05
Cultivator	11.92	9.09
Hoe	69.86	100.00
Sickle	58.09	Not recorded
Yoke	32.08	37.37
Sledge	18.15	23.23

(Source: Lesotho, 1972, 184, and Ha Khoeli census, June 1977)

Rural income Van der Wiel (1977), in his recent important study, has provided valuable data on the income of rural households (see also Marres and Van der Wiel, 1975, 60 - 63); This is a thorny subject for investigation which was intentionally avoided in Ha Khoeli in the hope of improving the quality and quantity of the wide range of other information respondents were asked to provide. No enquiry into rural income in Lesotho can claim accuracy; success in avoiding the most obvious pitfalls can only support a claim that the resultant data indicate the dominant trends. Van der Wiel's research during 1976 in the Thaba Tseka and Phuthiatsana areas, while posing as many questions as it answers, probably does this; although the details of his figures should not therefore be relied upon, it is valuable to examine them. His enquiries in 1976 lead him to suggest an average net household income of R783 or R151 per person of the de facto population (estimated at 5.2 persons per household) (1977,84). He then discusses the three principal sources of income for rural households in Lesotho: agriculture, livestock, and wage employment (the vast majority of which is migrant labour

in South Africa). He notes that land holdings are evenly spread among the population, particularly since households having more land tend to be those with more members to feed; holdings of livestock, on the other hand, are unevenly distributed (see the figures from the Ha Khoeli census presented in Chapter three). Van der Wiel stresses, however, that many households - about 30 per cent - have no income from the most important source, wage employment, and that these households tend also to have few or no resources in the other realms of subsistence (agriculture and livestock). He divides rural households into four income strata, showing the percentage of his survey population of 1,286 falling into each and the sources of their income:

Table 2.14 Rural household income distribution and source of income in the Phuthiatsana and Thaba Tseka areas (1976)

	Income strata (R)									
	0 -199		200-599		600-999		1000 +		Total	
% of survey population	27		20		27		26		100	
Average household size	3.1		4.9		5.1		7.7		5.2	
Source of income	R	%	R	%	R	%	R	%	R	%
Crops	26	39	66	16	30	3	75	4	47	6
Livestock	20	30	85	21	51	6	204	12	90	11
Subtotal agriculture	46	70	151	37	81	9	279	16	137	17
Lesotho off-farm	15	23	42	10	80	9	222	13	92	12
Migrant labour	5	8	215	53	698	81	1238	71	554	71
Subtotal off-farm	20	30	257	63	778	91	1460	84	646	83
Domestic income	61	92	193	47	161	19	501	29	229	29
Migrant income	5	8	215	53	698	81	1238	71	554	71
Total income	66	100	408	100	859	100	1739	100	783	100

Source: Van der Wiel, 1977, 84, 88)

The predominant role of migrant labour in sustaining rural Lesotho life is shown by the fact that the larger households are the more prosperous and that they derive a greater percentage of

their income from migrant labour than poorer households. As is argued in Chapter five of this study, Van der Wiel writes that

> "The majority of households in the low income group consists of widows living with little children, thereby lacking a potential wage-earner. The middle income groups, in particular the strata R600-999, comprise mainly nuclear families, of which the head is absent for a large proportion of the year. Households in the high income strata are larger in size, frequently multi-generational in composition, and consequently in a significant number of cases have more than one wage-earner." (1977, 88)

He suggests that studies such as that of the World Bank (1975) which emphasises the even distribution of wealth in Lesotho do not take adequate cognisance of the unequal spread of the migrant labour resource among households, or of "the relatively insignificant contribution of ... domestic productive assets as compared with earnings from wage employment in the Republic of South Africa." It is true that the distribution of able-bodied men among households is uneven; connected with this fact and with the participation of these men in the migrant labour structure is the shortage of workers for ploughing and planting at home, a factor germane to the analysis of inter-household farming networks presented in Chapter five. Moreover, the substantial recent increases in mine wages have expanded the differential between households which receive direct support from migrant labour and those which do not. Van der Wiel, however, does not give adequate recognition to the redistributive structures within rural communities. While significant variations in households' prosperity are readily apparent, the money the migrants bring home is to some extent diffused through the village. The brewing and sale of beer is a significant mechanism of this sort, but systems of sharing in agriculture, which are discussed in Chapter five, are of greater importance. If a migrant buys cattle, a plough or a planter, their use will not be restricted to his own household. Moreover,

it is through the payment of bohali (bridewealth) that he establishes and consolidates a household, and this process entails the transfer of substantial sums which often originate in migrant earnings (Murray, 1976b).

Reference may also be made to a slightly earlier study of rural income which indicates a distribution between farm and off-farm sources very similar to that suggested by Van der Wiel. Working from the results of its first two General Evaluation Surveys (1973-4), the Thaba Bosiu Project calculated the net income[1] of farm households[2] in its area to be R486 p.a. Three income categories were defined and incorporated in a table comparable with Van der Wiel's later data:

Table 2.15 Farm household income distribution and source of income in the Thaba Bosiu Project area (1973-74)

	Income strata (R)							
	Low (0-200)		Medium (201-600)		High (601 +)		Total	
% of survey population	29		41		30		100	
Source of income	R	%	R	%	R	%	R	%
Crops	22	25	22	6	48	5	30	6
Livestock	30	34	50	13	120	12	65	13
Miscellaneous	2	1	1	1	2	1	3	-
Subtotal agriculture	53	60	74	20	171	17	97	20
Migrant labour	25	28	257	68	596	58	289	59
Other off-farm	10	12	46	12	264	25	100	21
Subtotal off-farm	35	40	303	80	860	83	389	80
Domestic income	63	72	120	32	435	42	197	41
Migrant income	25	28	257	68	596	58	289	59
Total income	88	100	377	100	1,031	100	486	100

(Source: Thaba Bosiu Rural Development Project, 1975, 3)

1 Defined"... as the return to the household's labour, land and capital. It was calculated by adding together the net income from crops, livestock and off-farm work, including migrant labour." (Thaba Bosiu Rural Development Project, 1975, 1)

2 Defined as households having one or more fields

It can again be seen that the contribution of crops to net household income is small, and that households in the high income category obtain a much smaller proportion of their livelihood from agriculture than poor households.

In discussing these figures the author of the Thaba Bosiu Project report makes a number of interesting observations, identifying a trend which has continued and consolidated since 1975. The substantial impact of rises in South African mine wages is noted, together with the increasing marginality of crop-raising in the domestic economy:

> "Farming has increasingly become a marginal source of income to most farm households and the improvement of farming practices can only marginally improve their income.
>
> The reduction in the importance of arable farming in relation to migrant labour can also be expressed in terms of the number of months of mine work which the average miner had to work in order to purchase the production of maize from an average sized farm (15 bags x 200 lbs). About 3.3 months were required for this purpose in 1969, whereas 1.2 months are expected to be sufficient in 1975...
>
> ... The increase in mine wages increases its attraction and its importance as a source of income in relation to arable farming. This makes landholders pay less attention to arable farming causing a further decrease in its importance as a source of farm household income."
>
> (Thaba Bosiu Rural Development Project, 1975, 5)

The brief discussion in this report concludes with a concise statement of the economic status of Sesotho farming:

> "The fact that off-farm work is a main source of income is not new: its relative and absolute magnitudes are, however, new, and require a reassessment of agricultural policies. It is important to understand that by allocating the best labour and management resources to off-farm work, the landholder generally behaves in a rational way. Therefore, if efforts to change the situation will be based on the assumption that farmers' behaviour is irrational and will concentrate on advising them when to plough and plant, what crops to grow and what inputs to use, they may not succeed... The findings of this study stress the need to encourage production systems which are consistent with the marginal contribution of arable farming to the total farm household income."(1) (Thaba Bosiu Rural Development Project, 1975, 5-6)

1 cf. Helman, 1971, 135

The position of the Basotho in the labour structure of the southern African metropolitan economy has been indicated, and the convenience of employing a labour force still theoretically rooted in a rural subsistence base has been observed (cf. Winai Strom, 1978, 26 - 27). A final quotation from Van der Wiel's useful study places the economic status of the rural Mosotho in empirical perspective. Following earlier work on an urban Poverty Datum Line for Maseru (Marres and Van der Wiel, 1975), he derives a P.D.L. for the average rural household for July, 1976 (1977, 89). He finds this to be R96.00, and shows that about 75 per cent of rural households comprising approximately two-thirds of the population lie below this level[1]. Comparing this P.D.L. with wages paid on South African mines in 1976, he finds that

> "The starting wage paid by the mines is about 70 percent of the income an average rural household requires per annum to satisfy their basic needs. It is estimated that approximately 55 percent of mine labourers in 1976 received a salary in cash and kind below the poverty line." (1977, 90)

Conclusions: a peasantry?

In this brief sketch of current economic conditions in Lesotho, a clear trend may be discerned. Agriculture is in decline, and the contribution of oscillating labour migration in sustaining rural life is increasing. Yet the latter is quite inadequate as a sole source of real income, as Van der Wiel's comparison of mine wage rates and his Poverty Datum Line indicates. Farming continues to be necessary for survival.

It is instructive to conclude by considering whether rural Basotho today may be termed a peasantry. The application of

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[1] Subsistence crops grown and consumed within the household are converted to their monetary equivalent in Van der Wiel's calculations.

this concept to African societies is, as has been noted, a complex issue (Saul and Woods, 1971); Slater (1977) provides a valuable commentary on its use in South African historiography. The essence of the peasant condition - a relationship with a greater economic and cultural power, a state of relative deprivation - is clearly displayed by the Basotho, however. The cultural aspects of this tributary relationship, and their effect upon rural development and self-help, are discussed in Chapter six. Here it will simply be assessed whether the Basotho's material deprivation is best understood in terms of the concept of a peasantry.

Shanin (1971, 14-15) defines a general peasant type under four headings:

> "1. The peasant family farm as the basic unit of multi-dimensional social organisation... 2. Land husbandry as the main means of livelihood directly providing the major part of the consumption needs... 3. Specific traditional culture related to the way of life of small communities... 4. The underdog position - the domination of peasantry by outsiders."

The third and fourth facets of the peasant condition as Shanin describes it are an adequate description of Sesotho life, and are considered in Chapter six. Of more concern here are the first two factors, upon which Shanin may be quoted at more length:

> "The farm, and nearly only the farm, provides for the consumption needs of the family and the payment of its duties to the holder of political and economic power... The self-perpetuating family farm operates as the major unit of peasant property, socialization, sociability and welfare, with the individual tending to submit to a formalized family role behaviour... Food production renders the family farm comparatively autonomous. The impact of nature is particularly important for the livelihood of such small production units with limited resources."
> (1971, 15)

Certain aspects of this description apply to the Basotho; yet their dependence upon migrant labour has long precluded any

primary reliance upon domestic agriculture as the source of household consumption needs or as the foundation for household autonomy. Some families draw a larger proportion of their subsistence requirements from their agriculture than others; yet it would clearly be inaccurate to describe Sesotho economy as a whole in terms of peasantry. Shanin emphasises that the strict application of any such definition is a sterile exercise and that it is valid also to identify certain "analytically marginal groups" in relation to the central concept. Saul and Woods (1971) thus consider the notion of a peasantry in terms of its application to Africa and are led to recast the definition of the concept in the following terms:

> "... peasants are those whose ultimate security and subsistence lies in their having certain rights in land and in the labour of family members on the land, but who are involved, through rights and obligations, in a wider economic system which includes the participation of non-peasants." (1971, 105)

Here less emphasis is placed upon the family farm as the main subsistence resource; the principal characteristic of an African peasantry, it is argued, is its reference to the land as the source of "ultimate security". For the individual Mosotho migrant worker his rural way of life and small holding of land do provide this security: if he is unable to work abroad he may return home and survive there. Although he will live in poverty, the structures of domestic society and economy - which incorporate the redistributive mechanisms to which reference has been made - will sustain his existence. Yet for the Basotho as a whole the land provides no such security. The statistics which have been presented in this chapter indicate clearly that if it were no longer possible for men to migrate to work in South Africa - a possibility which current political conditions make it necessary to consider - substantial emergency relief would be required to

avert starvation.

It would be more congruent with the ideology upon which the system of migrant labour is based to assert that the Basotho are a peasantry. The evidence presented here suggests, however, that their historical experience has rendered them a rural proletariat. The importance of this conclusion for agriculture will receive fuller attention in Chapter six, but it informs the discussion of Sesotho relationships with the land now presented. The vernacular geography, agricultural methods and social structures to be described are those of a people long incorporated in a metropolitan economy and suffused with experiences of western culture. This interaction is germane to their existence as a nation; its relevance to their domestic economy cannot be underestimated.

CHAPTER THREE

CULTURAL CONTEXT

NOTES ON THE SESOTHO LANDSCAPE

Introduction

These notes are an effort to convey some of the features and the atmosphere of the environment within which the rural Mosotho lives and within which his agricultural activities take place. As a set of subjective impressions they typify the likely reactions of the western observer to the Lesotho country scene and indicate some of the experience which has moulded the arguments presented in this study on the relationship between man and the land there. They are primarily based upon the village and lands of Ha Khoeli where the most intensive research was carried out; fortunately this area exhibits a wide range of landscape features and impressions gained there form a more valid base for generalisation than would be the case in many villages. In the course of survey work, however, some 150 villages were visited in the central lowlands and foothills of Lesotho, and journeys were made on several occasions to other parts of the country. While the very different conditions of the mountain zone must be excluded, it is believed that a fair and general impression has been gained of conditions in lowland and foothill Lesotho. The trends in landscape and life which are felt to be most significant in this discussion are not emphasised too strongly, nor are many references made to the arguments that will be developed later in the study. It is felt more valid to present these notes on Lesotho conditions in a more neutral form, in the belief that they will lead the reader to the same conclusions as the author.

The use of the term 'Sesotho' is important. Fundamentally its meaning is adverbial: "in the way or manner of the Basotho", and the word as the name of the language of the Basotho derives from this meaning. Here it is intended to imply the landscape as lived and experienced by the Basotho.

The village

Notes on the Sesotho landscape must begin at the centre of that landscape, the village. Villages in Lesotho are very frequently sited in rocky places; for obvious reasons houses have not generally been built on land where crops can be grown (Sheddick, 1948, 15 - 20; see also Fuggle, 1971). Many are found on hill-slopes overlooking the gentler lands below where the fields are laid out, and in the shadow of steeper slopes or cliffs above. Tight clusters of houses are fitted in between great broken rocks at the base of Cave Sandstone cliffs in many places, and are reached by rugged twisting paths from the fields below; in some of these villages every sound is followed by an echo from the rock wall. More generally these settlements provide ample opportunity for sitting on a rock and surveying the lands, or shouting across to a nearby village, or rebuking a herdboy far away in the fields or on the steep slopes above. Defence considerations were primary when many of these villages were first established, although in recent times some settlements have been abandoned and rebuilt at more comfortable, accessible sites further down the slope. At Ha Khoeli a whole row of villages has been transferred to a corresponding row of sites on spurs further down the mountain; these are separated from the cultivable soils by short, steep slopes. The old sites are still clearly marked by the aloes which were planted as enclosing walls for livestock kraals and for

the village generally; in gentler country or from a distance, the sites of villages can often be discerned from the clusters of these plants. Even in the lowlands, however, villages are still in rocky places; they may be a few metres above the fields on a dike or other outcrop or cluster along the rocky edge of an incised river. Villages encountered when passing along a road, which may at first seem to be sited in agricultural land, are on closer examination found to be built on shallow soils or patchy land at the margins between soil and rock.

With rapid changes in the last five to ten years, the layout of some lowland villages has altered significantly. A villager may fence his building plot if he wishes, and new plots are now often allocated to include a small cultivable area in the knowledge that pressure on land will prevent the new household from obtaining a true field in the foreseeable future. For these households there is no question of subsistence on the land, and where part of the house site is cultivated the poor soils, whose proximity to the village has ensured intensive working over a long period, give very low yields. Such expansion of villages out of the older nucleated pattern is most common in the lowland zone, where the exhausted duplex soils are criss-crossed with tracks giving easy access to taxis heading to town, and fences and new rectangular houses, their metal roofs weighed down with stones, are scattered over the former fields between shallow depressions in the eroded soil.

Returning to the village proper, however, some of the features and activities within it may be examined, starting perhaps from a convenient vantage point at a large rock or little knoll on the

edge of the settlement. Many such places have a flat stone on which is etched the 'board' for the morabaraba game, a kind of Nine Men's Morris popular with men and boys and played with pebbles or peach stones as counters. (Boys play the game on rocks mostly in the countryside - the morabaraba pattern can be found scratched into stones on the remotest mountain tops as well as on isolated rocky outcrops in the fields). In the village a group of men, its composition constantly changing, may be seen playing morabaraba for many hours. Sites on rocky knolls often form social and official meeting places for men and perhaps for this reason the mildest elevation is sometimes called thabaneng (little mountain). Such places are generally forbidden to women and are termed patlellong[1]; if the village court or pitsos (public meetings) are held at such an outcrop women sit at a respectful distance. Other little elevations are termed leralla (hill), and it is important to refer to the right place by the right word, as leralla is commonly associated with excrement, the broken rocks (matlapa, flat rocks) often providing a convenient place on the edge of the village for the purpose[2]. (Men and women tend to go to different places, the latter using a more discreet site perhaps in a thicket of wattle saplings or among the aloes around a graveyard or a deserted kraal). The donga or eroded gully (lengope) is often used too: 'o ile lengopeng' (he has gone to the donga) is a common euphemism. Soil erosion also provides more salacious opportunities: an unmarried woman was heard to joke "bana ba ka ba kopuoe" (my children were begged for), and a male relative rejoined "e, ba kopuoe mangopeng" (yes, they

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1 A colloquial derivation from lepatlello.

2 See Free Associations listings, Appendix III

were begged for in the dongas)[1].

At one of the most important and respected places in the village, the men may play morabaraba, smoke their pipes and chat, sitting for hours or merely passing through. They may be joined by smart young men recently returned from the mines, who offer cigarettes around and display their suits and new trilby hats, their sunglasses or elaborately striped and studded sticks. A man may stop on his horse to exchange greetings as he passes through on the way to the mountains or a trading station; others on foot may stop briefly on their way to a beer hut. Old men may lean against the wall of a nearby kraal in the morning discussing the cattle within. These places of respect are often associated with cattle and herdboys may gather the beasts together there in the mornings before going to the grazing lands or let them sit there at dusk before closing them into the kraals. As places of cattle they are doubly forbidden to women, particularly those of child-bearing age. It is believed that violation of these areas by women may lead to the death of the cattle. As for the women, it is said that a girl who treads on patlellong will be unable to have children, and a woman is expected to know, for instance, which few metres of ground outside a homestead are the ones the cattle habitually stand upon, or which of two paths up a slope is the one used by cattle. Visiting women may be warned off with cries of "le ea patlellong!" (you are heading for forbidden ground) by local ladies.

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[1] See Free Association listings, Appendix III

At such an elevated place, then, there may be a group of men conversing - or there may be a single youth sitting on a stone and playing his lesiba (a Sesotho musical instrument). Another area of respect at which people may be gathered is the chief's place. The chief's homestead is often, though by no means always, distinguished by the large number and more solid aspect of its buildings; this varies a great deal with the importance of the chief. Men and women mingle freely, although men are far more numerous. Here conversation is in subtle ways more formal, as befits the official roles the place embodies and the supplication which is the purpose of many visitors. This is despite the homely scene presented here as in any household: of a girl entering with a bucket of water from the spring; of children roasting mealie cobs in a small fire; of a woman sorting beans on a piece of sacking; or a pig grunting about the yard. An important chief, however, usually has a separate building as an office and it is outside this that men will wait, sometimes for hours, to request a stock permit or a stamp on a labour document, to submit their arguments to the land allocation committee or to deliver a message concerning a court case. If it does not meet at a prominent place of the sort already described, the village court is generally held at or near the chief's place, perhaps under a large tree. Apart from those directly concerned, any men who are interested may gather to hear the case, question the plaintiff and the accused, and help reach a decision. Thus, mostly in the morning hours, from half a dozen to 30 or 40 men (and perhaps, at a distance, some women) might be seen engaged in serious legal business at the chief's place.

A far more attractive gathering place is a house outside

which a pepesela (little flag) is flying. Women struggle to erect huge poles so that their scrap of cloth or plastic sacking is visible from a great distance; in the event of there being no flag flying in their own village on a certain day, men may scan the horizon to find a flag in another village (often being able to identify the exact household at which it is erected), for it means that beer is for sale. Joala ba mabele (sorghum beer) takes two or three days to mature and is usually put on sale early in the morning. People gather inside the hut or sit around outside in suitable weather, conversing and drinking the potent beer. The mood is generally most convivial; and if drinkers are forced indoors by the weather conversation becomes even more lively and hours are sometimes spent singing. Men may drop in for brief refreshment or to sit for hours; women tend to spend a long time sitting over their drink. The potency of the beer and its sale so early in the day (a small brew may be sold out by mid-morning) ensures that in the afternoon people can often be seen stretched out asleep on the grass, either outside the beer hut or scattered about the village generally.

Like villages in most places, the Lesotho village is generally quiet. Unless the houses are tightly clustered on a difficult site such as those described at the bottom of cliffs, there is usually enough space between homesteads for a villager to be able to call out to a friend in a house some distance away if he or she moves a few metres to a convenient point. A predominant feature of the village atmosphere is its quietness, broken mainly by the calls of livestock at certain times of day, and by people addressing each other, often over long distances. The latter habit extends to the mountains and the fields, where men and boys

call to each other, or a traveller in the valley may call up to the village on the hill to see if his friend is there. The stillness is sometimes abruptly broken by a gramophone playing jive records brought from South Africa, or by a transistor radio turned up loud; but such general entertainment is usually welcome.

Women sometimes sit for hours in beer huts or otherwise relaxing and chatting, but a great deal of their time is taken up with domestic tasks. These include brewing beer, cooking, sorting beans (an endless task), weaving grass together into rope for various purposes, working in the vegetable garden which is attached to many households, washing clothes in the stream or donga, plastering the interior and exterior of their houses (a major job performed several times a year), collecting firewood, thatching grass and plastering earths, and drawing water. Some of these tasks, at home or further afield, are carried out alone; others are performed by two or three friends together or by a mother and girl children. Ashton (1967, 90) writes that "Apart from their domestic duties, agriculture takes up most of (women's) time." Weeding takes most of the day at a certain season, but during the rest of the year the balance would seem to have shifted away from the fields since Ashton's fieldwork in the 1930s.

While certain jobs are of course done at home, women often leave their homes or the village for such purposes as have been mentioned or for journeys to the trading store, a friend in another village, the clinic or the post office. Such journeys provide a pleasant change and are often undertaken when they are not strictly necessary. They are an opportunity to put on one's

stockings and best blanket and have a day out. The Basotho are in general a mobile people and this partly explains why so many households in any village seem closed up and deserted. Apart from journeys of a few hours to collect some commodity from store or countryside, people often leave home for several days.

Men have little to occupy them in the village, apart from conversing, engaging in village business or drinking in the manner already described. Here Ashton's description (1967, 88) remains accurate. Special tasks may demand attention, such as building a new house, repairing the wall of a kraal, cutting up and selling the meat of a dead horse or curing the skin of a cow, and a small minority of men carry on a trade as builders and thatchers. Masculine trades of a more part-time nature include shoe repairs and tailoring. At the beginning and end of the day those (mostly middle-aged and elderly) men who own livestock spend time with their animals, but during the day the stock is in the charge of herdboys. Quite apart from journeys to work, men travel more extensively and further afield than women, often on horseback. They may visit relatives in distant villages, travel to make arrangements about the herding of livestock, or attend weddings or funerals.

Outside the village

Purpose and place While no census of movements in and out of a village was taken, the impression gained was that of all such journeys made by men and women, about half have other villages as their destination. The great majority of the remainder involve the exploitation of physical resources in the surrounding countryside: livestock is taken out to graze, and many

miscellaneous commodities are gathered: firewood, wild vegetables, earth and clay for plastering, roots and herbs for medicine, thatching and other grasses, fodder for horses and donkeys. Only a small fraction of journeys made are for the purpose of tilling the soil, tending or gathering in crops. Such journeys as are made for these purposes are highly seasonal. In the spring, men and boys leave the village early in the morning with their oxen yoked together to pull a sledge transporting the plough to the fields. They generally return in the late morning. Women also spend mornings in the fields at this time, following the men at a later hour with buckets or cans of beer and basins of food for the workers. The next season of field activity, which is when the village presents its most deserted aspect, is in high summer when women go to weed the fields. This may take them several weeks of work from early morning to late afternoon, and they take most of their children with them. A few men join their wives for this work, but most go about their usual activities in the village. Harvesting has less of a draining effect on the village, as crops are gathered in over a long period during the winter months. For any one household it does not occupy more than two or three weeks, and this task tends to be carried out alongside the usual activities; a couple of sacks are taken to the field each day, filled with mealie cobs or sorghum heads, and brought back home. (Wheat, however, is usually harvested all at once). Most households then thresh the day's harvest rather than return for another load, although some people gather in the whole crop and then thresh it.

Leaving the village to visit another, to gather something from the countryside, to go to the store or perhaps to catch a bus to

town, the Mosotho passes into one of the two other broad categories into which Sesotho very simply divides the rural scene. The type of place just left is motseng, in the village. The remainder of the landscape consists of masimong, in the fields, and naheng, in the country (ie. all land outside the village which is not cultivated). The word naheng is most commonly used in connection with the grazing of livestock where a herdboy may say "ke ea naheng", (literally, I am going to the country), meaning that he is off to take his animals to graze. There is thus some possibility of overlap between the categories at certain times of the year when animals are grazed in the fields and the most powerful connotation of the word naheng (to do with grazing) overrides the strict distinction between fields and country. Women, too, often refer to naheng in a general way when off to gather something from the countryside or returning from such an expedition.

In their common use of the locative suffix -ng to describe such a trip, people link together the concepts of place and function, with the purpose of the place rather than its geographical position being the dominant information conveyed. In the countryside, this information thus usually refers to the exploitation of a resource, and a woman coming up the path to the village bent under a bundle of wood may say "ke tsoa patsing" (I come from the place of firewood, patsi); or"ke tsoa mobung" (mobu, earth); or a man with a bundle of grass for his horse: "ke tsoa furung" (furu, fodder). Much of the geographical information is suppressed because one's interlocutor may be expected to know where exactly such a resource is found; but often there are several places, and it is clear that the task rather than the place is, naturally, more significant. Further afield, the locative suffix conveys the

relevant information and suppresses the precise location, which is either commonly understood or unknown and for most purposes irrelevant: "ke ea toropong, kampong"(I'm going to town: the latter term refers to the administrative camp and is still used to describe some district centres. Such a statement is far more common than "I'm going to Maseru", for instance. As these centres are so few and far between there is little ambiguity in such a statement.) Or "ngoan'aka o Makhooeng" (my child is in the place of the whites, ie. the Republic; this is often all a parent knows about his or her son's place of work.)

The road Passing along the actual path or road, the traveller's position is perhaps a little ambivalent[1]. The two types of thoroughfare, tsela and 'mila, are divided according to the possibility of vehicular traffic, the latter being any route along which motorised vehicles can pass. There are more of these than is at first apparent, and the traveller may have to make way for a lorry from a trading store delivering a kitchen table and set of chairs to a young wife whose husband has returned from the mines, or a bed to a man who intends shortly to marry. He may also encounter a small boy driving a donkey with a bag of grain to the store for milling; a pair of teenage girls running to school; a man with a team of oxen and a Scotch cart delivering a load of bricks for the construction of a house; a woman with her baby returning from the clinic; or an old man asleep on his way back from pepeseleng (a beer hut.)

The fields As has been noted, the scene in the fields varies,

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1 See Free Association listings, Appendix III

naturally, with the time of year; but the predominant impression at any time is one of desertion. Human activity makes its strongest mark on the landscape at ploughing time, when newly turned brown stripes on the land draw the eye to the lines of cattle and men working upon them, and cries and cracks of the whip are heard across the fields. At weeding time a solitary woman bent among the crops often goes unnoticed, as do groups of workers unless their talk or singing draw attention. The same impression is gained at harvest time, save where a noisy harvest letsema (working party) is in progress. Solitary figures or small groups may be observed in the fields throughout the year; a couple of herdboys roasting a rat or bird they have caught on a little fire at the edge of a field; a girl stooping to pluck leaves of a wild vegetable for the evening meal; an old man staking his horse on rough ground too shallow for ploughing (thotaneng, on the small plateau).

Such small features often break up the agrarian landscape in lowland and foothill Lesotho. Thotaneng refers to a spur or ridge coming down from a mountain or hill above; it may blend into fields as soon as its soil become deep enough, or be separated from them by a small outcrop of rock. (At such a place a man armed with sledgehammer, chisels and crowbar may be found breaking stones for a new house). In flatter country such a feature may be more of a plateau, where the soil is not deep enough for cultivation and the close-cropped, stony grass slopes down to the edge of the fields. If small, such areas may be favourite sites for grazing horses and donkeys; larger ones may be general grazing lands, in which case a small herdboy may be found singing vigorously to himself as he stands and looks at the animals. Again, a nearby rock is

often chosen as a vantage point and a morabaraba board. A large and exceptionally flat, smooth rock may be used as seotlo (a threshing place) and women may sit on a smaller one to sort sorghum heads or prepare refreshments for men ploughing a field. The thotaneng area is the site for the more common type of seotlo, a circular area of beaten earth two to four metres in diameter.

Sharper rocky outcrops sometimes punctuate the fields; these may be old volcanic plugs or exposed dikes of dolerite. In the lowlands they are generally bare save for long grass livestock cannot reach; in the foothills where the outcrop is more often volcanic, trees commonly grow among the broken rocks. Unless the ubiquitous herdboy chooses to sit there, such a place is deserted.

Rivers Most paths cross small streams (which are often dry for much of the year) and many cross rivers, whose size also varies substantially with the season. Depending upon the size of the river and upon the topography and soil type through which it is flowing, it may have steep donga-like cliffs on either side of a broad bed - these are descended by tortuous and crumbling paths and ascended with difficulty on the other side - or the approaches to the stream may be more gentle. Some rivers are deeply entrenched in gorges which make their crossing a major effort, but their principal obstacle value depends upon the season. It is not uncommon for villages to be cut off and for people to be drowned after heavy rainfall; or vehicles attempting to cross may be swept away, sometimes with great loss of life. The small stream or shallow river is a beneficial and friendly place for the Basotho, being the place where clothes and children are often washed and where livestock are watered. Any place of deep water -

a large river or a deep pool (koeetsa) in a mountain stream - is feared, however, because of the danger of drowning and the presence of actual water snakes and enormous mythical ones[1]. Few people visit the places of reedbeds (lehlakeng) and willow trees along the banks of rivers, except at the limited season when the cutting of reeds for thatching is permitted.

Dongas The donga or soil erosion gully is a far more common rift across the countryside; some contain streams but many are dry for most of the year. They vary according to their stage of development and the soil type from cracks in the ground to deep and fantastic chasms. Some of their functions in Sesotho life have already been described. Where to some extent the donga has been stabilised and grass has grown in the bottom it is not uncommon to see horses grazing there. The Basotho have a natural fear of falling into dongas (which can easily occur if the soil at the edge crumbles away), and dongas together with the edges of cliffs are obvious sites for unpleasant crimes. A far more common accident is for a cow to fall into such a gully.

Larger settlements Having passed through fields and dongas the traveller may perhaps reach a larger village. Certain settlements stand out as central places in the Sesotho landscape, being the sites of three sources of attraction: the church or mission, the trading store and the road. To some extent these three tend to occur together: the commonest conjunction is of trading store and road, followed by mission and road, followed by mission and store. The presence of a mission or store marks a

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1 See Free Association listings, Appendix III

settlement on the landscape by the many large trees commonly planted around such establishments. While the trees may have spread to some extent through the rest of the village, closer inspection of such settlements shows that the alien presence remains enclosed in a discreet enclave within villages which for the most part differ from their less important counterparts only in size. While household inter-village mobility is probably less than previously in Lesotho due to the lack of new land for house sites, mission and store settlements have often grown larger than others. The core of the first type was originally the settlement of converts, leading to the common village name Majakaneng (place of the Christians) and many settlers have subsequently been attracted by the establishment of mission schools and clinics in these villages. The joint attraction of store and road exert a greater pull today on those able to choose where to live, and it is where these features coincide that the most vigorous settlements may now be found. At the centre the old trading store, surrounded with tall trees, continues to do good business, its yard filled with donkeys laden with grain for the mill, old broken buses and people talking or waiting in front of the shop. Less savoury establishments are expanding rapidly, especially on major roads: here Sesotho beer is brewed and sold every day and European beer and spirits are available; it is dangerous to be abroad after dark. Also abounding are new small stores, butcheries, cafes and fish and chip shops, and at the bus stop sit numbers of women with fried fish and oranges to offer to travellers when the 'Tau ea Thaba' (Lion of the Mountain) arrives. Passing down the main road, one may pass men with briefcases and red flags driving the cattle they have bought in the Republic at the mine gate back from the railhead to their villages in the

mountains; and many government vehicles may be seen going about their business. At the major junction with the tar road more fish and chip shops ply a brisk trade, a struggling garage is littered with ancient vehicles, and beggars and small boys loiter among the orange peels and flattened tin cans.

Mountains and wild places To set off on a journey in the opposite direction, a woman might leave her village in the foothills to climb up to a place on the mountain where she knows she will find grass for making brooms; or a man may set out on his horse to inspect his cattle at the summer grazing post deep in the mountains. The gradients may soon be steep, the air sharp and the stillness more profound, broken by the bleating of sheep and goats and by herdboys shouting to each other or singing to themselves. The path into the mountains may at one stage pass through a belt of trees and bushes between the cultivable slopes and the stony grassland above; the remoter parts of some of the gorges and valley heads (khohlong) are still quite thickly wooded and are generally feared ("ke ea bobeng koana", I am going to that evil place, said a horseman setting off for the head of the valley and the mountains beyond). Fear of snakes, occasional baboons, wandering madmen or thieves is part of this feeling; and there are more eerie tales of the supernatural to add to the evil reputation of such places. An old man gave a gruesome description of the ghosts (lithotsela) a dog senses before its master in khohlong and of the hideous skeletons which clatter among the trees, still recognisable to the living by the blankets they wear from their previous lives.

Few people save herdboys leave the path for the slopes or

hilltops, unless they are collecting some specific commodity (the most profitable on lower slopes being matekoane, marijuana). Among the Basotho it is only the herdboys who scramble to the top of a mountain and many inhospitable crags are topped with a pile of stones they have erected[1]. On winter nights the herdboys' presence on remote mountain slopes is demonstrated by the grass fires that may be seen far above the village, and in the day a column of smoke may be seen rising from the distant and secret site of a mophato (boys' initiation lodge); those not connected with the rite take care not to stray close to such places.

Relations with the landscape: further aspects

Some elements of the Sesotho landscape have been described above. It has been shown that the village is by far the most significant item in the landscape, and that it is followed in familiarity and experience by other villages, larger centres and the paths and roads that lead between these places. The village will be discussed again below. Reference has also been made to popular feeling about certain other features: some more general comments will now be made on four aspects of relations with the landscape.

Men and women Differences between the sexes with regard to landscape relations should be noted. In any village the men have a more detailed knowledge of general landscape features and names, for two reasons. Firstly, as herdboys, the men roamed over every inch of the village lands, going out each day of the year. Women know the fields themselves as well as the men, but in the rest of a village area their knowledge is limited more to the places where

[1] See Free Association listings, Appendix III

specific resources may be found. (Here, of course, they may often know more than their husbands). Secondly, most married women have been brought to a village from another place where they were born and raised, to live with their husbands in a new household or at the place of their parents-in-law. Therefore younger wives especially may not know nearly as much about the area of their new village as they do about their home place. Strong sentiments bind a woman to her home village throughout her life and it is common to hear an old grandmother sitting in the homestead where she has lived for 60 years, talking about someone 'hae koana' (at home there).

Naming the landscape Each village area, which includes grazing lands, fields and village is intensively known and named by the people of that village, but not by those of neighbouring communities. Only the herdboy goes somewhere without a purpose, so it is common for someone in one village not to know the names of the subdivisions of a village a kilometre away, or for a woman never to have been on the hillslopes beneath which she has lived for several decades. Place names are numerous and a great wealth of them has accumulated despite the relatively short period in which the land has been occupied by the Basotho. Village names especially are often temporary, commonly being of the Ha Ramotsoane (Ramotsoane's place) type named after the chief, and may be changed or added to when a new chief takes office. Thus many villages have several names: one might refer to a feature of the place, eg. Thoteng (on the plateau) and two more might refer to an old chief and to the present chief. The majority of settlements are named after a chief or other prominent person; others may refer to a landscape feature, an

historical event (eg. Thaba Bosiu), or a type of person prevalent there (eg. Matebeleng, place of the Matabele or Nguni). In keeping with the predominant position of the village in the Sesotho landscape, village names and their variations are by far the best known place names from one community to the next. On the more detailed level, both men and women know the fields intimately. A middle-aged man knows most of what may be several hundred fields in his village area and who their holders are, although he may have to check with a herdboy in places where he rarely goes and the rights have been reallocated since his youth. A woman's knowledge is equally detailed, save for those few areas where she never goes to weed or harvest her own fields or those of relatives or friends. Each few hectares of the field areas may have a name, its origins often hard to trace but apparently referring to a villager of the past (see Ha Khoeli field map). Similarly each tiny stream or gully is generally named. In both these cases, (especially the latter) the knowledge of women is significantly less detailed than that of men.

Paths and roads are not so commonly named, unless their destination is referred to; some major thoroughfares between lowlands and foothills may however bear such prosaic names as 'Tsela ea Baeti' (Travellers' path). Passes are named after some feature of the area or sentiment experienced by the traveller, eg. Molimo Nthuse (God Help Me). Mountains, being far less frequented, are named in less detail, although the majority of peaks have a name. These commonly refer to the appearance or shape of the feature, frequent allusion being made to the head of a cow (eg. Thaba Chitja, the hornless, ie. round and smooth mountain). Extremely lewd allusions are altered in general usage

to the euphemism Bitso Lebe (ugly name). Peaks may also be named after persons or events.

Emotional attachments The general sentiments of the Basotho with regard to the physical landscape in which they live may briefly be discussed. There are few features which arouse specific emotions of fear or dislike; the common distrust of khohlong (the gorge) and wooded areas, and of deep places in rivers, has been noted. Occasionally someone may mention a fear or unease experienced in a certain field area, for personal reasons. Otherwise such sentiments are rare. The general trend of attitudes to the physical landscape is a function of the close and exploitative relationship between the people and their environment. The landscape is therefore not a thing of pleasure and delight, nor often of beauty (Germond, 1967, 417, 419). It is hard and inhospitable and much of it is of little use to the Mosotho, whose feelings on surveying a mountain vista are markedly different from those of the European. The Mosotho is not incapable of seeing beauty in a hill or mountain stream, a sunset or the night sky, but this is not the broad shape of his attitude. Such a view is of course unremarkable in view of the relationship mentioned above; the ugliness and fear sensed by such travellers as Cobbett in the Cotswolds - at a time when similar relationships prevailed in England - are well known.

A beautiful landscape, in Sesotho, is one providing ample resources for crops and livestock. The prosperity of the latter is most important, there being frequent reference in Sesotho literature to the size and sleekness of the herds and the capacity of the land to support them. The following imaginary landscape

conjured up by Mofolo is an example:

> " In those days and in that month there was no country among all those which the Creator of all things had made which was more beautiful than Basutoland. From the earth there came the sweet smell of the wetness of the rain, from the earth came the sweet smell of the wild flowers, underfoot was the dampness, the foot trod pleasantly; the eye did not tire of admiring the different animals, the ear heard songs of all kinds; the country was full of water, the springs were bubbling everywhere; the little streams were running swiftly, running pleasantly over the beds of sand and stones; the water was clear, the drinking places were full, and only waiting for the cattle, the springs were waiting only for the cattle and the wild animals. A marvellous beauty indeed." (Mofolo, 1912, 56; translation by Ashton, n.d., 47)

More specifically, the Basotho are deeply attached to the land which they have been forced to make their home. This is an emotion unconnected, of course, with the actual physical features of the landscape, but rooted in the qualities of refuge and independence which the overworked and overpopulated land provides. An articulate statement of such feelings was made long ago:

> " A chief on hearing that certain people to whom he had showed hospitality presumed to appropriate to themselves the district they occupied, coolly observed: 'The land of my ancestors knows her children! She will reject the new-comers!' There was more in this than a figure of speech. 'You ask me to <u>cut the ground</u>?' said the sovereign of the Basutos to some white men who had settled on his land, and were absolutely determined, by means of a line of demarcation traced between themselves and him, to ensure to themselves the exclusive possession of the territory they had invaded... 'You, my friends, who are strangers, you think it quite natural that my ground should be cut. I, who am born here, I feel my soul revolt at the thought. No; I will not cut it! Better lose it altogether!'" (Casalis, 1861, 157. Emphasis in original).

Even today, when it is the South African mine economy which provides much of the Mosotho's livelihood and the village which occupies most of his time at home, his life is still closely involved with the land: his rights to it remain an element of security; the cattle to which he is deeply committed both emotionally and economically, are dependent upon it; and the

southern African political economy ensures that his village life remains dependent upon its resources.

In this connection it is valuable to quote at length the description of Basotho migrant workers' songs recorded by student researchers on the train from Maseru:

> " On leaving Maseru the men are in an ebullient mood. The language is insulting and vulgar. A lot of singing takes place as well. The songs relate events from Maseru to the mines -
>
> 'When you cross the Vaal river,
> You have to stand in queues.'
>
> ...The praise and recitations about the mountains of Lesotho are moving:
>
> 'Lesotho, now I leave you with your mountains
> Where I used to run.
> I am going to the white man's place - the tableland.
>
> Keep our children so that they may grow up on your sides
> As we did ourselves.
> I am leaving you in Lesotho.
> I will never see your men with their beautiful mountains.
>
> I am going to the white man's place - with electricity.
> I am leaving all the dark places here
> But I still prefer the mountains of Lesotho.'
>
> The song continues when the men give beautiful expressions and names towards these mountains. For they are very much attached to their land...The migrant workers...are fully aware of the transformation they go through: from kings of the mountains to little men in the flat land of the whites to rats in the mines." (Agency for Industrial Mission, 1976, 11 - 13).

Vernacular geography: Lesotho Within Lesotho the most commonly perceived distinction is between the mountain area (Maloting) and the rest of the country, which consists principally of lowlands (mabalane). Ashton writes that Sesotho distinguishes the mountains as a completely separate place from Lesotho (the lowlands)[1] but this usage was not encountered. Many people, indeed, are not familiar with the term mabalane for lowlands, and it is certainly

[1] See also Sheddick, 1954, 42.

not in daily use among the people of that zone. (It is more commonly used by people in the mountains). The distinction between mountain and lowland, however described, is of great significance for a number of reasons, which include climate (and consequently patterns of living, raising crops and tending stock), accessibility, prices of goods, and levels of prosperity (see Mofolo, 1910, 1 - 3).

Reference may be made in this regard to question 17 in a questionnaire survey on Sesotho attitudes and farming problems, which was administered in the Thaba Bosiu Project area. The methodology and results of this questionnaire are discussed in full in Chapter six and Appendix III. Only the replies to question 17 are considered here. In this question respondents were asked to make sentences of any sort they wished, beginning with the words " In the mountains....". It was hoped that the predominant perceptions of the mountain zone among lowland and foothill Basotho would be revealed by the sentences they offered about this subject.

The ten categories of response most frequently mentioned in sentences generated by Basotho from this introducer are tabulated in Appendix III. Perhaps because it was the first item in this section of the questionnaire, question 17 produced less helpful responses than those which followed, there being many cases where respondents could not offer any completed sentence. Those which were completed, however, show a primary concern with the mountain zone as a place for livestock (" We own and herd stock"), with crops less frequently mentioned (" We grow staple crops"). Basotho outside the mountain zone commonly

think of that area as one of prosperity, particularly in the form of large herds of livestock. They refer often to the bitter cold experienced in the mountains, but not surprisingly pay less attention to the problems of accessibility, unless they have had first hand experience of these. They appear to see the Basotho of the high mountains as living a freer, more prosperous life, which although perhaps hardier is a cause for some envy.

Most people in Lesotho can describe their position relative to those of the major centres of population, pointing out the relative directions, for instance, of Maseru, Butha Buthe, or Qacha's Nek. Far fewer, however, would be able to draw a map showing such places, and only those recently in school would understand one. That the Sesotho geography of Lesotho should be well informed and correspond closely to western perceptions of the spatial relations between places is not surprising; it has been pointed out that the Basotho, particularly the men, are a mobile population within their country in addition to their acquaintance with more distant places. Moreover, much of this travel - in the lowlands at least - is by bus or 'taxi', of which there are large numbers, generally packed to capacity, wherever roads reach. The Basotho have not been settled long in historical terms; many have friends or relatives in other districts and possess the means with which to visit them.

Vernacular geography: across the Caledon Beyond the Mohokare (Caledon) river, however, notions of geography are almost entirely vague. As soon as the river is crossed, one has entered

Makhooeng (the place of the whites), although some people jocularly place Maseru in this zone also. Gaudeng, the place of gold, refers to the areas where gold is mined (the northern Orange Free State and southern Transvaal), but as most references to places across the border concern employment in the gold mines the two terms are often used interchangeably; where the subject of conversation is a coal mine or some other mine, the usage may also be extended to it although it is located in a different area, such as the eastern Transvaal or Rustenburg. It should be pointed out that Gaudeng is generally known to be north of Lesotho. The positions of Natal and the Cape Province (Koloni) relative to it are well known. The location of any place beyond the Limpopo is a completely vague notion to most people, although England is well known and the names of more exotic places such as Egypt and Palestine are constantly evoked by the proud men who served in the Second World War. Many people assume that all whites come from Makhooeng (South Africa) and the distinction of England as a separate place has to be explained in these cases, despite the common knowledge that the Englishman and the Afrikaaner are different creatures. One old woman refused to accept that the writer did not come from Makhooeng as he defined it, saying " ha o tšetse Mohokare ke Makhooeng kaofela"(everything beyond the Caledon is the white man's place), and a young man enquired whether England was further than the gold mines.

The names of many of the towns and villages in the southern Orange Free State are commonly used in Sesotho and here there may be some idea of where these places are in relation to each other. Beyond these, the names of mines and mining towns are also well known, but very few people have an idea of their relative positions.

Basotho travelling to them are transported by train and bus from the recruiting agency in Lesotho to the mine compound, and do not have to arrange the journey for themselves. With the exception of weekend visits to other mine compounds or nearby townships (Agency for Industrial Mission, 1976, 19, 31, Anglo American Corporation, 1976, 22 - 24), Basotho mine labourers have little contact with South Africa outside their places of work. The Sesotho geography of South Africa is strictly controlled by apartheid.

The functional relationship between the South African economy and the land and farming of Lesotho will be discussed at several points in this study, as will the effects of the Basotho's position in South Africa upon tradition and innovation. One geographical image which is often conjured up in discussions of South Africa's labour reserves - of which Lesotho is one - will be considered here. Analysis often describes these reserves as distant extensions of the urban mining economy: as rural slums, or places where one is prepared for work and where one goes when one can no longer work. The people of these places are commonly described as being dispossessed members of the modern industrial economy. Such descriptions may be accurate as western analyses of economic and political relationships. It must also be enquired, however, how the mine and the village are related in Sesotho perceptions. In a functional sense, as has been noted, they are closely integrated - to the extent that for the Mosotho man the period of labour on a distant mine is an extension of his village life with its values and aspirations. A young man goes to the mines for his first contract and returns for subsequent contracts to fulfil goals defined entirely within contemporary

Sesotho culture: to acquire the resources with which to marry, or to buy the goods that will be needed in his new household. He will return in order to support his family at a decent standard of living and to obtain goods regarded as status symbols in contemporary Sesotho life: furniture, clothes, a gramophone, cattle. When he reaches a certain age he will retire from the mines and stay at home with his cattle and his crops, leaving the earning of wages to his sons or, in most cases, undergoing a substantial fall in living standards. But even in the latter event, his status as a mature citizen has been assured; and if he is fortunate his standing can be perpetuated and enhanced through the cattle he has accumulated and the children he has begotten.

At a more fundamental level, there is no doubt that in the direct experience of the Mosotho migrant labourer the mine and the village are totally discrete worlds. The changes and differences he perceives are described in two recent reports (Anglo American Corporation, 1976, Agency for Industrial Mission, 1976), from which songs have already been quoted about the beauty of Lesotho. Crossing the Mohokare (Caledon) river into South Africa on the train, the migrant labourers feel that they take on a new identity and sing

> " Mohokare, now I assume another blanket,
> Now that I have crossed you...
> In crossing the river I become a new man,
> Different from the one I was at home. "
>
> (Agency for Industrial Mission, 1976, 12)

As the Anglo American report explains (1976, 37 - 39), the migrant labourer on the mine is absorbed into the powerful and dangerous reality of day-to-day existence at work. The reasons for his being in this place derive from a different place, " but

while on the mine, home must come to seem more and more fantastic and remote" (Anglo American Corporation, 1976, 38). Many Basotho work on mines in the Orange Free State and some are therefore able to make weekend visits home, unlike migrants from more distant areas. The Anglo American report notes (1976, 39) that " those who return home regularly seem to be the only ones who are able to hold on to the home reality while away on the mine. And even many of them eventually become creatures of the mine world ". Some Basotho do not return to their villages between contracts, either remaining illegally in South Africa or dissipating their earnings in Maseru (Agency for Industrial Mission 1976, 9).

Most Basotho migrant labourers retain their village roots, however, returning there between contracts and maintaining their family responsibilities. It has been shown that in vernacular geography the two worlds are almost wholly discrete, while in culture and economy they are fully integrated. The need for the outside commentator to appreciate perceptions of the two places and their effect upon domestic activities such as agriculture is evident, although our understanding of these matters is as yet quite inadequate.

Conclusion

The premise upon which the presentation of these notes on the Sesotho landscape has been based is that, however difficult the achievement of true empathy with another culture may be, the non-Mosotho attempting to intervene in the country's agricultural sector must at least appreciate the principal features of vernacular relationships with the land. While the above discussion has been presented in a largely neutral form, an

attempt has therefore been made indirectly to suggest some of the many ways in which other aspects of lifestyle and culture impinge upon the condition and prospects of Sesotho farming. Separate attention will now be devoted to one of the most significant of these, the keeping of cattle.

CATTLE

> The Bapeli chief Thulare: " 'Men', he used to say to his people, 'let the ripening fruit be gathered by day - fruits of a well-loved soil: but by night run ye to the cattle-posts with him who fights only in the dark' ". (Ellenberger, 1912, 33)

Introduction

The important place of cattle at a number of points in the Sesotho landscape has been apparent in the discussion above. This indicates the central significance of livestock in Sesotho life, a factor which must now be investigated and defined. Although this study is principally concerned with arable farming, the raising of crops and the tending of livestock are so closely interrelated in the culture of Lesotho that an understanding of this interrelation is essential to any assessment of agricultural conditions.

A lack of understanding has, however, been more common in previous analyses of the motives and sentiments underlying Sesotho stock-holding. Such misinterpretations have appeared in a number of reports published in the colonial period and subsequently, some of which are quoted below. They derive from the confusion common in studies of the cattle-holding societies of eastern and southern Africa, of which the Basotho

are one. Such studies have identified traditional habit and an emotional or sentimental love for livestock as the primary motives guiding Africans' livestock strategies, rather than more 'rational' material or economic considerations.

These arguments have been particularly attractive to commentators on rural conditions in Lesotho who have identified overstocking as a serious and obvious problem. Unable to understand Basotho's failure to control stock numbers or grazing strategies, they have ascribed overstocking and attendant problems such as soil erosion and allegedly low interest in farming to Basotho's preference for quantity rather than quality in livestock and for livestock, particularly cattle, rather than crops. Policy recommendations deriving from their studies have therefore resembled counsels of despair, particularly in view of the existence in Sesotho society of rotational grazing systems (see Chapter seven) and the recognition by many Basotho that livestock are causing erosion.

A cattle complex?

Such attitudes, prevalent among colonial administrators but still common among foreigners involved in African agriculture, may be described as a misinterpretation of the concept of a 'cattle complex'. This concept was advanced at a high level of generality by Herskovits (1926), as part of his ambitious attempts to map 'culture areas' in Africa. In his work Herskovits referred to the complex as a "complex whole" or congeries of related attitudes and practices. The more recent meaning of the word as "a mental tendency or obsession" has often been attached to the notion of a cattle complex, however, by both anthropologists

and non-academic commentators on African stock-holding.

A number of more careful examinations have been undertaken of the role of cattle in eastern and southern African societies, Evans-Pritchard's seminal study of the Nuer (1940) being a prime example. We must now attempt in brief to imitate this more sensitive appraisal of attitudes to cattle among the Basotho. As Schneider points out:

> "It is not necessary to take an exclusive position in the matter of whether cattle are economically valued or ritually valued. They are both. They can be used to gain pecumiary ends while still being 'gods with wet noses' as Schapera puts it (molimo o nko e metsi, in the parallel Sesotho phrase). The only thing to be insisted on is that for the most part the one objective is integral to the other, ritual status being intuitively tied in with economic value, just as pecuniary use is integral with subsistence use." (1968, 442)

Herskovits specifically included the Basotho among the peoples exhibiting the cattle complex (1926, 271): "Among the Basuto herds are riches". In support of this he cited Casalis' early description:

> "Whoever possesses no cattle has no means of existence. For this reason the Basutos call the bovine species the hairy pearl. From their earliest infancy their imagination feasts upon the form and colour of the cattle, which are continually before their eyes. The little boys forget their play to discuss the merits of a certain cow.... The care of the flocks is considered a very noble occupation, and worthy of the attention of persons of high rank." (Casalis, 1861, 153; Herskovits quoted the original French version).

In his useful papers on African stock-keeping, Schneider has also referred to the Basotho as examples of the integration of subsistence and ritual (1957, 295; 1968, 438). In both cases he cites Sheddick (1953)[1]; as he says (1957, 295), Sheddick does not

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[1] By 1968, his quotation of Sheddick's 1953 observation to the effect that "The Sotho have always recognised the exchange value of one steer for two calves or four bags of grain" constituted a distortion.

regard the Basotho as being within the 'cattle complex' area. It would appear, however, that Sheddick's interpretation of Herskovits' concept is of the erroneous type mentioned above. In fact, Sheddick's comments would place the Basotho firmly in the area if the concept were correctly interpreted. He writes:

> ...(The Basotho's) evaluation of cattle is for the most part based on practical considerations... The esteem in which the Basuto hold cattle is closely related to the superior facilities for storing and investing wealth that cattle provide in such an economy." (1953, 21)

Smit's comments, on the other hand, constitute a less sensitive assessment:

> "Stock, and especially cattle, have great importance socially as well as ritually, but little thought is given to their economic value." (1967, 35)

While the term 'cattle complex' is perhaps best avoided for fear of misinterpretation, the adoption of such a holistic approach is useful in an attempt to analyse the significance of cattle in Sesotho life. The task remains a difficult one, and no exhaustive or wholly satisfactory treatment can be attempted here. But the role of cattle in the modern landscape of Lesotho is so prominent, and the damage caused by overstocking is such a crucial problem for agricultural planners, that it is felt necessary to treat the subject at greater length. The principal point to be emphasised is the intimate interaction of material and non-material considerations where cattle are concerned. This complexity is best analysed by a discussion, first of the emotion, sentiment and ritual attached to cattle, followed by an examination of the role of cattle in the village economy, and concluding with comments on the importance of cattle in marriage, an institution which best expresses the functional integration of all these aspects of the complex. As Schapera and Goodwin wrote, "Cattle...loom largely in a man's thoughts" (1937, 137).

Love of cattle

Sesotho sentiments for cattle are well expressed by the riddle:

"Q. 'Lehadima, leredi le pota motse?' (lightning, a beauty encircling a homestead?)
A. 'Namane e nyenyane ha e thala' (a young calf frolicking) ".
(Guma, 1967, 43)[1]

Cattle and the tasks and pleasures connected with them are at the core of the masculine way of life in a Lesotho village. As such they are closely connected with all that is traditional,noble and desirable in a man's mind, and the Basotho like other people respect and strive for such qualities. A strong and especially meaningful bond is subconsciously asserted every time a man calls his son, addressing him by the colloquial 'monna' (man), and advises or rebukes him in connection with the herding of the household stock. Both father and son are aware of the economic importance of their animals and of the self-respect and happiness they bring to their owner. They know also that cattle are the theoretical and often real medium through which, in marriage contracts, a household is established and sustained. Men have herded cattle in their youth and boys hope one day to have their own. Cattle impinge upon each stage of life of the male Mosotho.

The men and boys of a village know all their community's cattle intimately; if many people's stock are grazing together, they can name the owner of any single beast, and usually give the name of the animal itself, without hesitation. The fondness with which a man regards his cattle is evident as he leans over their kraal wall (beneath or within which, traditionally, a Mosotho was buried), and looks at them in the evening. Many

[1] See also the loving description of the hero Fekisi's cattle in Mofolo's classic work of Sesotho fiction (1912, 37 - 40), Some of the actions of Fekisi's cattle prompt his musings on God.

assert (eg. Ashton, 1967, 142 - 143) that the degree of affection is not as great as it was. Jingoes (1975, 39 - 54) describes the old ways with cattle, and M. Damane (pers. comm.) recalls the pride with which a herdboy of his youth would walk without a word into a communal herd at evening and be followed out by his father's animals.

As Evans-Pritchard noted in a comment on Nuer cattle vocabulary (1940, 41):

> "Linguistic profusion in particular departments of life is one of the signs whereby one quickly judges the direction and strength of a people's interests."

Sesotho idiom, dignity and eloquence are highly coloured with reference to cattle; reference has already been made to the comparison of mountain tops to the head of a cow, and indeed, as Ashton points out,

> "Apart from about a dozen simple adjectives such as 'large', 'small', 'long', 'short', the only adjectives in Sesotho are those expressing colour which derive from descriptions of cattle, and all of these have a masculine and feminine form; thus, in addition to adjectives for simple colours, such as black, white, dark brown and fawn, they have many adjectives connoting colour combinations such as phatšoa (black and white), thamaha (red with small white spots)..." (1967, 142)[1]

An eloquent and highly respectful form of greeting to an important chief is the phrase "Likhomo tseo le manamane a tsona" ("those cattle and their calves", referring to the old mafisa custom whereby a chief might loan out his cattle to destitute subjects and foster their loyalty and prosperity by allowing them all rights to the offspring). Praise poems and heroic idiom of all types, including much political oratory, include numerous

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[1] Certain adjectives referring to characteristics other than colour are used, eg. chitja (round and smooth) to which reference has already been made. But they also derive from descriptions of cattle.

allusions to cattle and their qualities. One example is from a praise poem of Posholi:

" Khomo ea Ramothele e khoalipana,
E khoalipana eka khak'a Linala,
Khomo eka tšoan'a metsi a Lethena,
Ea metsi a Lethena le Leqholoqha.
Khomo ea hae eka ntsu, Litsipho,
Ea khanya ka hloho le ka mahetla.
Ke khomo ea fohlo la bana ba me,
La bo-Maluke le bo-Mapeshoane,
La bo-Sekoati le bo-Maphakela,
La bo-Chopho le Selete (Leluma)
Molele oa bo-Molomo oa Maqoacha.

'Ma-mara a malata thamahana,..."

(Mangoaela, 1921, 170)

" Ramothele's cow is black with white spots,
It's black with white spots, like the Guinea-fowl
of the Claws,
The cow's like the black one from the waters of
the Lethena,
From the waters of the Lethena and the Leqholoqha.
His cow's like an eagle, Claws,
It's white on its head and its shoulder:
It's the cow of my children's share of the spoil,
Of Maluke and Mapeshoane,
Of Sekoati and Maphaleka,
Of Chopho and Selete,
The vagabond of the Shatterer's Molomo and his men,
The leader of the armies which go to fetch the cow that
is red and white-spotted! "

(Translation by Damane and Sanders, 1974, 88)[1]

In the closely guarded secret songs (likoma)of Basotho boys' initiation lodges, Guma (1967, 118) writes that

" Chiefs are poetically referred to as dikgomo (cattle); the elders of the tribe as dinku (sheep), and the tribe as dikonyana (lambs)."

He continues (1967, 121):

" (Initiates) are...taught to protect property, particularly cattle which they are urged to defend with their last drop of blood." [2]

More prosaically, the chairman of a mutual aid association in

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1

2 See also the praises of the cow recorded by Mapetla (1924, 4)
See also Ellenberger, 1912, 282-283, Lemue,1854,211-213

Ha Khoeli congratulated the people of the village who had contributed most that month; "Bolometsa ke poho!"(Bolometsa is the bull), and a man concluded his speech in a Ha Khoeli village court session with the dignified words: "ke se ke tla botha" (now I will sit down, using a verb especially referring to cattle).

Cattle and economy

A middle-aged man, opposing in a Ha Khoeli village meeting the proposed enclosure of a small area of hillside for the planting of trees, asked sarcastically whether the government expert who had suggested the idea had noticed that the Basotho had cattle: fearing any reduction whatsoever in the area of grazing land available, he went on to state categorically that "khomo ke bophelo ba Mosotho" (the cow is the life of the Mosotho). This concise but determined statement refers both to the emotional attachments already discussed and to the economic significance of cattle; but following the implication of the orator the emphasis must be placed on the latter. Here the discussion may be directed to two spheres of life; the domestic and the agricultural. The actual number of animals involved and their distribution through a village community should be noted first, however.

A census of Ha Khoeli (see Appendix I) showed that of 122 households, 78 (63.9%) had no cattle at all and that a significant proportion of cattle-holding households held less than four animals:

Table 3.1 Ha Khoeli census: numbers of cattle reported per household

No. of cattle	% of all households
0	63.9
1 - 4	17.3
5 - 8	10.7
Over 8	8.1

Source: Ha Khoeli census. June 1977, Q.64

This is probably a slightly smaller proportion of stock-holding households than that represented by figures in the report of the 1970 Census of Agriculture, which refers to the percentage of land-holding households reporting ownership of cattle:

Table 3.2 National percentage of farm households reporting ownership of cattle

	%
Lowlands	50.32
Foothills	50.21
Mountains	50.69
Orange River Valley	46.29
Total	49.98

Source: Lesotho, 1972, 83

It should be noted, however, that in the Ha Khoeli survey as in other enumerations of livestock statistics, there is probably consistent under-reporting. As Sheddick noted (1953, 31): "Far from confessing to the magnitude of his herd, a Mosotho will conceal his wealth..."

Jenness and Khethisa (1971, 3) found that a high proportion of their sample population of stockholders (69%) kept cattle. Interestingly, they argue (1971, i) that "By comparison with field farming, stock holding is far less of a business and far

more a matter of sentiment and belief. For these reasons it is much less open to obvious technical manipulation aimed at profit increase". They go on to note, however, (1971, 3) that the proportion of "practical" to "ceremonial" reasons for keeping cattle mentioned by their respondents was 2:1.

It can be seen that the majority of households do not possess any cattle at all, and it should be noted that ownership of the animals is predominantly among the more mature households. It should also be observed that a significant proportion of households having cattle do not have enough to make up a plough team of even four beasts and that the family with more than ten is rare. It is in view of the economic value of these animals and their comparative scarcity relative to productive units (households) and the means of production employed, that the problems of overstocking should be considered.

Within the household, milk provides important nutrition where it is available, although out of 122 households enumerated in the Ha Khoeli census only 12 reported that it was consumed every day and 106 said that they drank it rarely. Meat is also much appreciated when an animal dies, but slaughter only takes place for ritual purposes, when certain parts, notably the gall bladder, have specific uses in the ceremony but the meat is of course greatly emjoyed in the feast. Cattle also provide skins for a variety of purposes, and gut is made into straps and thongs for use with yokes and other farming equipment. Their most important contribution to domestic life, however, is dung, which is collected from the kraals and elsewhere, dried and burnt for cooking and warmth in the cold

winter weather. It is also used with earth and water to make the plaster smeared, several times a year, on floors and interior and exterior walls of houses.

In the fields cattle play a vital part in the village economy. As a source of traction they are essential for every field-holder who wishes to plough and cannot obtain the services of a tractor (save the small minority of cases where a field is so small or inaccessible that out of choice or necessity the ground is turned over with a spade). The desirability of having at least four and preferably six cattle to make up one's own plough team is evident, for numerous obstacles are otherwise placed in the way of timely ploughing. It is common for those having only one or two animals to combine and make up a plough team (ho kopanya sepane) and to plough their various fields together one by one, but this offers ample opportunity for delay and disagreement (see Chapter five). If a field holder has no cattle at all he must resort to borrowing or more commonly, hiring from or sharecropping with a stock owner who is capable of ploughing the field in question. Again the chances of being able to plough on those couple of days when weather and soil conditions are judged to be optimal in the field are infinitely less than if one has one's own plough team; the pressure upon the available stock and the delays caused by the intensity of demand in the ploughing season ensure this.

In all these regards the tractor presents similar problems to a greater degree. The advantages it offers are the greater speed and efficiency of ploughing once a working machine and driver arrive at the field in question; the latter factor can

of course have a significant effect upon crop yields. However, the very low tractor population density and high average age of machine in Lesotho ensure that it is almost impossible to have a field ploughed when conditions are at their best; a booking must be made some time in advance or a contractor must be relied upon to offer his services in the area at a suitable time. In many cases the tractor fails to appear or breaks down, and the cost of the service is higher than that of hiring a team of cattle. In the marginal agricultural conditions of Lesotho the returns to the extra investment in tractor ploughing are uncertain at best for the holder of two or three separate parcels of land of less than 0.5 ha. each. Where land continues to be cultivated by individuals and fields are not amalgamated for the purpose of mechanisation, cattle are a more suitable source of traction. More research is needed on improving the efficiency of ploughing with cattle: on the technical side improved ploughs and ploughing techniques need to be designed; and more should be done administratively to make sharecropping an efficient and attractive practice.

Cattle and marriage

> " We Basuto are children of a cow, because all the people of Basutoland, the chiefs and the commoners, their mothers were married with cattle. " (Councillor Lepekola Batere, Basutoland National Council, 1948, 154)
>
> " Ngoana ke oa likhomo" (The child belongs to the cattle, Sesotho maxim quoted by Murray, 1977, 84).

The traditions and sympathies of the Basotho have been separated from some of the details of material substance in the above discussion of the role of cattle. Their function in the Sesotho institution of marriage, however, demonstrates their central importance in the fundamental process of securing and

perpetuating the material survival of the household. The subject of marriage in Lesotho has recently been investigated by Murray (1976a, b) and the following comments rely heavily upon his elegant analysis (see also Jingoes, 1975, 23 - 24).

As Murray explains (1976a, 99):

> " The principle of marriage in Lesotho conforms with a prevailing paradigm of marriage with cattle in eastern and southern Africa. The elements of this paradigm, in a simple and generalised form, are the following: (1) the filiation of children depends upon the transfer of bridewealth payments from the husband's kin to the wife's kin; (2) cattle have a special value in the social structure - they form the substance of the marriage sphere of exchange, by contrast with a subsistence sphere of exchange which may be dominated by agricultural produce and by earnings in the cash sector ..."

Murray's third element concerns the patterns of transaction which result "such that cattle are seen to pass in one direction and wives in the opposite direction" (1976a, 99) and the fact that "the circumstances of oscillating (labour) migration impose peculiar strains on the marital relationship and generate significant patterns of deviation from the Sotho norms of virilocal residence and patrifiliation" (1976a, 101). The discussion here is concerned principally with the first two elements.

It is necessary firstly to understand the function of marriage in fulfilling the "Sotho norms of virilocal residence and patrifiliation". These norms constitute the household whose sustenance and security are under analysis. In it a man's wife and children live with him in the household he establishes at his place, which is usually in the village or chief's area of birth. Providing that he has "sufficiently married" his wife, he and his kin have a right to the fruits of her labour and the labour of her children. A household is sustained by

labour in three areas: domestic tasks must be performed in the home; agricultural work must be done; and, most significantly, labour must be sold outside the home agricultural sector if the household is to survive at a tolerable standard of living. It will be argued in this study that rural life cannot be sustained by domestic agricultural production: the latter only supplements the contribution of migrant labour. A household member can only sell his labour in the external market for a part of his life; in youth and old age he must depend on other members. As each member operates within that market as a completely independent unit of labour, it is essential for the household at home to have a strong claim upon the money he or she earns. Control over labour is therefore vital for a household's sustenance and perpetuation.

As potential bearer of children, a wife is a source of labour, and the payment of bridewealth cattle (bohali) by the husband's kin to hers is in compensation to the latter for the loss not only of her own labour but of that of the children she may produce. As Murray points out (1976a, 101): "Customary demand and real payment are high by any comparative standard ..." in these transactions, and it is not therefore surprising that the payment of bohali should be a process extending over many years in most cases (he quotes periods of up to 38 years); and it is only when an acceptable proportion of the total payment has been made by the man's kin that the wife's kin will slaughter an ox in the hlabiso rite and acknowledge the man's paternity of his wife's children and the rights to their labour which accompany it. Moreover, given the compensatory role of the bohali payment it is not surprising that the process should be gradual and contingent upon

the wife's successful production of new labour units for the household. Each step in this long procedure may be contestible and of vital importance to a household's welfare in view of the many disturbing pressures placed upon the latter by the migratory labour system. Murray thus quotes the tactics of one household head who became involved in litigation over bohali:

> " The speculative finesse that she brought to the game of bohali lay in her ability to manipulate exchange rates, to balance inputs against outputs over time, and to exert pressure at the appropriate points in the ponderous judicial process". (1977, 96)

Having established the vital importance of bohali payments, attention must now be given to the second element of Murray's paradigm: the role of cattle in this fundamental area of the Sesotho economy. This differs from that in many other societies within the 'cattle complex' area in that "while the reckoning is invariably in head of cattle, real payments are often made in other media - cash, small stock, horses, donkeys or other material items" (Murray, 1976a, 101). The standard payment at present is 20 cattle together with ten small stock and a horse, but the total is rarely reached, even after the husband's paternity has been acknowledged and full formal agreement has been reached between the two families at the hlabiso feast. If, as is very often the case, cattle are not available in the man's household, the principal alternative means of payment is cash. A certain proportion of the bohali may be paid in other stock or material goods, but it would not be acceptable for most or all of the transaction to be in a third 'currency'.

A man who wishes to initiate or continue bridewealth

payments but who does not own or have access[1] to cattle has a choice. He may either purchase real animals with which to make the payment, or he may pay his in-laws a cash sum whose equivalent value is the subject of negotiation. Whether he pays in animals or cash depends upon the rate of exchange stipulated by the woman's family - who are generally acknowledged to have the right to decide this. Although it is a standard expectation that at least some of the total bohali paid should be in animals (Murray, 1976a, 110), it is much more common for a man in this position to transfer cash than to purchase stock. Each element of a total bohali transaction, ie. each payment of animal or cash over the many years before the process is concluded (if it is - Murray quotes a Sesotho saying that "bohali never ends") is the subject of detailed negotiation, argument and often litigation. In all of this the most desirable situation for the man is to have cattle already in his possession from which payment can be made. Not only does greater prestige accrue to him than if mere cash payments are made, but the labour required to sustain a naturally expanding stock holding is not increasing, whereas that needed to raise its cash equivalent is. Moreover, the man with a scrawny animal or two to put forward in bohali negotiations is in a rather stronger position than the man whose proffered cash equivalent is somewhat under par in the eyes of his in-laws. Although few find themselves in this fortunate position of having cattle available for bohali or any other purpose, this brief examination of the function of these animals in marriage suggests the desirability of struggling to acquire and maintain a number of cattle, not necessarily of highest quality.

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1 Some fathers actively support their sons in this matter, but Murray suggests that claims of paternal responsibility are often exaggerated (1976a, 111).

Three stories

Finally, the replies of 247 Basotho to three questions about cattle are presented. These were put to them in a questionnaire administered in the area of the Thaba Bosiu Rural Development Project in June, 1977 (see Appendix IV and Chapter seven). As a conclusion to a set of questions about soil erosion and its prevention, three 'stories' were presented in a crude, preliminary attempt to gain information on Sesotho attitudes to the material and social considerations pertaining to cattle-holding. The results are presented here with a minimum of comment, as it is believed that although no definite conclusions can be derived from them, they display clearly the wide range of factors the Mosotho must take into account in deciding a livestock strategy, as has been indicated in the discussion above.

The first question (No. 48, Appendix IV) asked:

" A certain man has eight animals: three cows, four oxen, and one bull. He goes to work, and gets enough money to buy one milk cow from the Government here, or two oxen in the Republic. Which should he buy? Explain."

(It should be noted that the man already owns enough animals to make up a plough team). Respondents answered as follows:

	%
He should buy a milk cow	65.4
He should buy two oxen	32.9
Don't know	1.7

The following were the principal reasons given for the two replies:

He should buy a milk cow	%
So as to feed his children	30.3
Milk cow will provide food and sustenance for his family	25.6
The cow will multiply	5.0
The cow will feed children and provide milk for sale	4.6
He lacks a milk cow	2.1
A milk cow is a source of money	2.1
The cow will multiply and feed his children	1.3
The cow will give milk and increase his wealth	0.8

He should buy two oxen	%
The two oxen will help him plough	30.3
So as to increase his wealth and hire out to others	2.5

The second problem posed was as follows:

" An old man lives happily: he has five cattle, a horse and two donkeys. He has three houses and three fields; he has a Scotch cart and all farm implements. But his table is old and broken, and he has only one chair. His sons send him some money. Some men come selling a fine cow. Should the old man buy a new table and chairs or should he buy the cow? "

The respondents were almost equally divided in their opinions on this question:

	%
He should buy a table and chairs	50.0
He should buy the cow	49.6
Don't know	0.4

The reasons given for the two replies were grouped as follows:

He should buy a table and chairs	%
He should obtain what he lacks	22.0
He already has many cattle	15.4
So as to entertain guests and improve his home	12.0

He should buy the cow	%
The cow will benefit him and his family	16.2
So he can plough	12.4
So as to increase his wealth	10.0
So one of his sons can marry	3.7
A cow is the source of prosperity, the wealth of the Mosotho	3.3
The cow will multiply	1.2
The cow will provide sustenance for his family	0.8
The cow will provide milk and plough	0.4
If he dies the cow will survive him and sustain his family	0.4
A table and chairs are good but will not keep him alive	0.4

The third question adopted a slightly old-fashioned attitude to the rights of young women and other circumstances of a marriage transaction. It referred to the same old man:

" The younger son of this old man has not yet married; there also remains one unmarried daughter. Two rich men from other villages come to him; each wants his son to marry the girl. The first offers a good number of

beasts for bohali; the second will not give so many, but they are fine, including two Government improved animals. The old man likes both men and their sons are good; he does not know whom to choose, Which bohali should he accept? Explain".

Responses to this question were as follows:

	%
He should accept the bohali with many cattle	53.7
He should accept the bohali with fewer cattle	43.5
It should be the girl's choice	2.4
Don't know	0.4

Listed below are the reasons given for the two principal responses:

He should accept the bohali with many cattle	%
So his son can marry	17.2
Because they are many	13.0
It is the Sesotho way	8.8
So as to be wealthy	7.6
Improved cattle are too much trouble	3.8
It is required for a proper marriage arrangement	2.1
They will help his farming	0.8
Women leave when they wish in any case	0.4
To complete the bohali transcation	0.4
A large number is satisfying	0.4

He should accept the bohali with fewer cattle	%
Improved cattle will help him prosper	18.1
Because they include improved animals	17.6
Improved cattle are strong in farming	1.3
Improved cattle will help with milk & farming	0.8
Quantity is not important	0.4
Improved cattle are less trouble	0.4
Improved cattle will multiply	0.4
Improved cattle will give milk for sale	0.4
The larger group of animals may be in poor condition	0.4
Improved cattle are a source of money	0.4

Conclusion

As has been pointed out, the physical role of cattle in marriage transactions is declining. The need for a cow to be slaughtered on certain ritual occasions continues, but as the data above indicate, statements by policy-makers to the effect that " for too many of the purposes to which cattle, sheep or goats are put, two scrawny animals are better than one prize one" (Jenness and Khethisa, 1971, 15) must be read with caution.

The most important function of cattle in Sesotho life today is as a source of traction for agriculture and transport. Here both quality and a certain quantity are essential for efficiency to be achieved, and the Mosotho is well aware that neither requirement is generally fulfilled. For as long as it is necessary for him to divide his subsistence between the land and wage employment - the latter on terms so disadvantageous that his household's survival must depend upon intricate negotiations of the sort just described - he must strive to raise the quality and, in most cases, increase the number of his cattle. The severity of the overstocking problem in Lesotho must therefore be a function of the degree of sustenance the Mosotho obtains from his participation in the southern African cash economy.

CHAPTER FOUR

METHODS AND KNOWLEDGE IN SESOTHO FARMING

Introduction

An attempt will be made in this chapter to examine certain technical aspects of Sesotho farming and associated relationships with the physical environment. It is not possible in the space available to present a detailed study of the great array of Sesotho environmental knowledge, nor to make a comprehensive analysis of farming methods and their impact upon productivity [1]. But it is possible to posit a distinction which will then guide the choice of material treated and inform the analysis of Sesotho farming as it is developed here.

The distinction to be made concerns the extent to which two modes of environmental exploitation are manifested in contemporary Sesotho economy. The ancestors of the Basotho prior to the Lifaqane practised a freer and more diffuse agriculture than has been possible since the nation settled and was compacted within its present borders. Although arable farming was relied upon for a substantial proportion of total subsistence, the supply of land was relatively abundant. A field could be tilled until yields began to decline, and a new piece of land could then be taken over and planted to crops. No strict system of rotation between tired lands and fresh ones was required: nor indeed would it have been possible

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1 A technical manual which may profitably be read in conjunction with this chapter is Bevan and McKee (1975).

in the subsequent decades of turmoil, as groups of people travelled from place to place in the Lifaqane, planting crops wherever and whenever they could and hoping still to be in the same place at harvest time.

This essentially opportunistic system of agriculture continued to prevail in the early decades of the Basotho nation's existence, before the pressure on land became too great. Casalis (1861, 164), for instance, writes that when a field was seen to be exhausted, it was abandoned and a new one cleared for cultivation - although he also notes that this was likely to be next to the old plot and that the latter would once again be farmed when it was seen to have rejuvenated. Accounts of the nation's early land tenure also suggest that as new communities formed, and the chief chose the lands he wished to cultivate himself, it was then up to his people to choose plots they desired to farm in the vicinity, subject to his approval (Mohapi, 1956, 19).

Such methods of farming clearly presented the cultivator with wide scope for the exercise of technical expertise in choosing a satisfactory mode of exploitation: briefly, where to plant, what to plant and how to cultivate and protect the crop through the season. The Basotho practised various other, analogous systems of exploitation in their physical environment so as to obtain the resources required by their economy: they chose where and upon what to graze their livestock, and gathered grasses, earths, roots and other vegetation for a variety of purposes. As with the practice of fallowing in the exploitation of agricultural land, regulatory structures were involved in response to increasing demographic pressures. These were designed

to protect the quality of the resources in question; their use often being rotated or restricted to certain periods. Such regulatory structures are still evident today, the Sesotho system of grazing control - constricted and inadequate as it now is - being a prime example (see Chapter seven). These modes of exploitation continue to require the exercise of substantial environmental knowledge and skills by the Basotho. Farming, on the other hand, has undergone a substantive change in losing the spatial dimension for the development of these environmental skills: as the area of land a household cultivates is no longer selected or regularly rotated to sustain its quality as a resource, a large area for decision-making ability has fallen away.

However, modes of exploitation such as the system of settled agriculture that has evolved in Lesotho require the successful deployment of other technical skills if their productivity is to be maintained. As land use grows more intensive, and it becomes impossible simply to abandon farm land to recover by entirely natural processes, knowledge and skills must be developed to perpetuate the fertility, structure - and sometimes the very presence - of the soil, if output is to be maintained and perhaps increased in response to a growing demand for food. In particular, stability and success come to be a function of the farmer's responsible participation in his ecosystem, to which substantial returns must be made - rather than the mere regulation of exploitation.

An attempt must therefore be made to distinguish between these two dimensions of exploitation in examining Basotho's

productive relations with their environment. To what extent has the latter more positive, participatory mode of exploitation evolved in Sesotho farming, and how much do agricultural methods continue to represent the more spacious, ecologically extravagant attitudes of a society able to draw upon a greater abundance of productive resources for its sustenance? The search for an answer to this question guides the discussion now presented.

A questionnaire Two principal areas of primary source material are drawn upon in this chapter. The first is personal field experience, mostly in Ha Khoeli and its lands, which was recorded on a daily basis whenever possible. The second is a questionnaire survey administered in the area of the Thaba Bosiu Project. The responses of 337 randomly selected land-holding household heads (or their spouses) were recorded, with the intention of achieving a representative two per cent sample of the households with fields in the Project area. Further details of the sampling method, together with an English version of the questionnaire and some tabulated results, are presented in Appendix II. In the first section of the following discussion, however, the observations presented derive primarily from Ha Khoeli.

Land and fields

It is not proposed to treat the complex issue of Sesotho land tenure in any detail here, as a number of analyses have already been made (Sheddick, 1954; Bentsi-Enchill et al, 1963; Ashton, 1967, 144-157; Cowen, 1967; Stevens, 1970; Williams, 1972; Hamnett, 1973; Monyake, 1974; Hamnett, 1975, 63-85; Makhanya, 1978). But it is necessary to outline and illustrate

the principal features of the system of land-holding.

Rights to fields This system allows each rural household the expectation of being allocated land for farming; as a result of increasing demographic pressure on land resources, the wording of the relevant legislation has been adjusted to replace the right of the household head to be allotted fields with the duty of the chief to allocate agricultural land to the people. These rights of usufruct are formally allocated to the adult married male, although allocations are also occasionally made to bachelors and spinsters. When polygyny was more common, rights to land were allocated in respect of each wife or 'house'. This is rarely relevant today; but the long-established expectation of three fields as a household's full entitlement persists. The pressure of land resources already noted prevents many households from ever attaining this full allocation; and whereas originally a newly married man was taken by his father to negotiate an allocation of fields from the chief (Mohapi, 1956, 19), numerous families must now wait several years - even a decade or more - before being allowed rights to a single field. As the foundation of domestic subsistence and security, rights to fields are vested in married men as heads of households and remain with a widow after her husband's death. In view of the dwindling size of the family unit at this residual stage, however, the custom is often cited whereby a widow is entitled to retain only two of the ideal holding of three fields after her husband's death, the other being reallocated to a different household. On the extinction of the family unit - usually after the widow's death - the land returns to communal custody for reallocation

to other families. In practice, however, the formal entitlement to farm the fields in question is often simply transferred to a son or sons of the household.

Losing fields As will be noted in Chapter six, the concept of mature, respectable Sesotho citizenship incorporates numerous normative elements. A number of these impinge on land tenure. A man is allocated fields as a responsible member of the community under his chief, and may be deprived of the land if he does not pay his taxes or fails to offer proper allegiance to the chief. By renouncing membership of a community and departing permanently to set up his household elsewhere, he gives up his rights to land in the former and must apply for farming land afresh in the new place. On the other hand, a man may live and work elsewhere - notably in South Africa, or in a Lesotho town - and retain rights to fields at his home place indefinitely if he continues to maintain his responsibilities and allegiances there and arranges for the land to be cultivated. The central role of farming land in communal subsistence is emphasised by the custom that a land-holder who fails to cultivate a field for more than two consecutive seasons may be deprived of that field. In practice, however, substantially longer periods may elapse before land is reallocated for this reason, as it is recognised - particularly in the case of residual households - that severe constraints hinder the timely cultivation of land each season (see Chapter five) [1]. Contemporary practice thus affords considerably more

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1 In the census carried out in Ha Khoeli (Appendix I), only eight per cent (6.6%) of the households reported that they had ever lost rights to land. None of these cited failure to cultivate or fulfil communal responsibilities as the reason.

security of tenure than the bare rules of the system appear to permit.

Administration The essence of the Sesotho system of land tenure is thus that arable land is a productive asset held communally. It cannot be owned, bought or sold (a fact which complicates questions of investment, credit and urban development). This is theoretically true of other natural resources, notably grazing land, reeds, thatching grasses, trees (outside the village) and wild vegetation - although those who cut thatching grass may subsequently sell it, and the rights to fruit from trees in the fields may often be a matter of contention. At the centre of the administrative system which controls the allocation of fields and other natural resources is the chief. Following the formal gazetting by the British of certain chiefs as having these allocation rights, a fairly clear hierarchical structure of administration and appeal through greater and lesser chiefs and Sesotho courts now functions. Along with matters of bridewealth, however, land tenure is the principal focus of the intense and often protracted litigation in which the Basotho nation is perpetually engaged. Few household heads can expect the early, routine allocation of three fields to them. A man must apply for land and plead his case; if dissatisfied he may appeal. Many conflicting claims arise between family members over land, particularly with regard to the reallocation of rights from one generation to the next. Moreover, there are few parts of Lesotho where the various members of the chiefly hierarchy are at peace with each other over their respective rights of allocation and the borders of authority and exploitation between

them and their communities.

Despite its high cost in legal energy and ingenuity, however, the system of land tenure continues to function. In an effort to curb the obvious scope for favouritism by chiefs in their allocation procedures, the government has recently introduced land allocation committees, whose function and confusing nomenclature are briefly noted in Chapter seven. Although ultimate authority remains with the chief, the committee for the allocation area is supposed to meet regularly with him or her and consider all application forms for arable and building land in joint session, exercising a moderating influence on the powers of chiefly discretion. The effectiveness of these committees depends upon the personality of the chief and on local politics. In some communities the chief is powerful enough to ignore the committee; in others the latter may be in a position to exert real authority. In others, as in Ha Khoeli, the committee members may be allies of the chief in village (and often party) politics generally, so that those outside the favour of the chiefly party may still suffer discrimination. The scope for dissatisfaction and dark allegations continues to be wide.

Definitions and measurement A question which immediately arises concerns the use of the 'field' as the unit of land allocation and expectation. No concept of the field as a land parcel of standard size exists in Sesotho. Certain vernacular methods of measurement and definition exist, however, which it is important to outline. Other things being equal, fields in Lesotho tend to take an approximately rectangular shape.

Little arable land in the country is completely flat; a significant slope is usually apparent. As is noted again in Chapter seven; Basotho have long been almost unanimous in ploughing along the contour. Not only is this sound conservation practice; it is also easier for oxen and ploughman. Moreover, much of the effort involved in ploughing with a team of oxen is expended in turning the team around at the end of the field and getting it back in line to proceed in the opposite direction. The further the team can plough without having to be pulled around - within the limits imposed by the stamina of the oxen - and the smaller the total number of turns required, the smoother the task becomes. Taken together, these factors favour the layout of arable land in rectangular parcels. It may also be noted that the soil type generally varies from top to bottom of a slope. As Mohapi (1956, 20) notes, an important consideration when fields were first laid out and allocated was that each land-holder should be given some of the best land as well as some of inferior quality. Besides contributing to the early fragmentation of holdings, this factor also promoted a rectangular field pattern.

It must be emphasised that many square fields are to be found, and that numerous others take triangular or totally irregular shapes, particularly in the more cramped and contorted peripheries of the arable landscape. The Sesotho method of subdividing and measuring fields, however, derives from the predominant concept of rectangularity, which as has been shown is a function of technology and topography. Most fields are divided by grass strips, which may or may not cover terrace banks and which run parallel to the direction of ploughing

(ie., in most cases, at right angles to the direction of slope and the shorter side of the field). These strips derive from two sources. The first is the tema or rectangular area identified as a suitable unit into which to break up the ploughing operation. The second is the comprehensive system of conservation structures - principally banks and grass strips - laid out over most of the country's arable land in colonial times (see Chapter seven); for this reason these strips are sometimes known as terekere, presumably after the tractors that laid them out.

Such strips may also be known as akere (from the English 'acre'). This is confusing as they may or may not coincide with the unit of measurement known as the Sesotho acre, itself a parcel of varying size. The interesting and uncertain origins, function and perceived uniformity of the Sesotho acre cannot be treated adequately here (cf. Wallman, 1965). Most Basotho say that their acre is 12 paces along one side of the field at right angles to the direction of ploughing (commonly the shorter side); the other dimension of this rectangular unit is not measured, and may be 20 metres or 100. Land is not allocated in Sesotho acres, but charges are made by ploughing contractors on the basis of this unit. The Sesotho acre is principally a measure of labour, deriving from the predominance of the turning operation in the total time and effort of the ploughman and his team [1]. Although no empirical study has been made of the sizes of Sesotho acres in western measures of area, these clearly do not vary so greatly as to render the unit unsatisfactory

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1 Many land-holders say they do not know the size of their fields in Sesotho acres, as they have never been worked by contractors and have therefore never been measured.

for use in Sesotho farming.

Indeed, the extent of the Sesotho acre is effectively constrained by a number of factors which affect the maximum length of the ploughing strip. Principal among these is the configuration of the Sesotho landscape, which generally presents obstacles to ploughing in an unbroken line before a strip is 100 metres long. Further, as Orwin and Orwin (1967,35)[1], note, the length of the strip is limited by the need of the oxen to rest from the sustained effort of pulling the plough through the ground. Also of fundamental importance, however, is the essentially equitable distribution of communal lands represented by the Sesotho field pattern. This controls the use of the 'field' as the unit of allocation and expectation of arable land. Although there are large variations in field sizes and inadequate empirical observations are available to date, it is again clear that the variation does not render the field a meaningless areal concept for the Basotho. Indeed, Hamnett (1973, 45) concludes a review of some of these questions by arguing that

> "What is of particular interest is that the intuitions and impressions of the Basotho, though irrational in particular instances, should have proved to be so close to the tenurial situation suggested by a systematic statistical inquiry."

A further consideration, also taken up by Sheddick (1954, 77) and Hamnett (1973, 44) is relevant here. This concerns the Sesotho terminology used to describe parcels of arable land. Three basic types of parcel may be distinguished in descending order of size: tšimo, a field; serapa (diminutive seratsoana),

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1 The Orwins' discussion of the open fields (1967, 30-52) is of great interest to the student of Sesotho farming.

a garden or small field; and jarete, a garden. Serapa or seratsoana is most commonly a parcel in the field area away from the village, whereas jarete is usually a small plot adjacent to the homestead; but this distinction is not absolute. Care must therefore be taken in the enumeration of land holdings. A man may reply to the question, "U na le masimo a makae?" ("How many fields do you have?") that he has none at all; but the supplementary enquiry, "Ha ho na serapa kapa seratsoana le sona?" ("Is there no garden or small plot either?") might reveal that he holds two or three small parcels of arable land. In describing the poverty of his land holdings a Mosotho may say of a certain parcel "hase tšimo ho hang" ("it's not a field at all"): an attempt was therefore made in Ha Khoeli to elicit a consensus of opinion as to the distinction between tšimo and the inferior serapa. Most informants felt that tšimo, a field, was a parcel of four akere (acres) or more, but although the akere referred to was usually the formal Sesotho unit, no final clarity could be achieved on this question.

Field shapes and sizes At this point it is useful to present the actual example of Ha Khoeli in more detail. On a map of part of the Ha Khoeli land allocation area enlarged from Thaba Bosiu Project orthophoto maps (Figure 4.1, back pocket), the arable land holdings in a central area of the best farm land, closest to the sub-villages studied, are shown. (Remoter parts of the allocation area are not mapped: towards the head of the valley where parcels are smaller and more contorted, and towards the opposite periphery where holdings of the community studied are more interspersed with those of others.) Land parcels were sketched by eye in the field onto a base contour map and

adjusted by reference to aerial photographs of the area, fortunately taken in spring when the boundaries between newly-ploughed fields are most clearly visible. Information as to which strips and terraces merely split up fields and which separated one holding from another were obtained from herdboys and others [1]; details as to the right-holders of each parcel were recorded in a field tour with one of the chief's principal councillors. The holdings of a selection of households, and the locations of the latter, are indicated (the information presented in this regard being restricted for the sake of clarity).

A brief examination of this map illustrates many of the comments made above about the shape of Sesotho fields. The basic element in the layout of these lands is a rectangular strip, often curved to fit the contour; this is most clearly manifested on the broader, open slopes. But fitted in between these areas and the limits of cultivation (steep slopes, rocky places, rivers and streams, roads and large paths) are other parcels displaying a variety of irregular shapes. The irregularity of some field boundaries may also be attributed to the vagaries of the allocation history of the area, which probably spans over 100 years.

A brief inspection of Figure 4.1 also gives an immediate impression of the actual size of the land parcels Basotho cultivate. Whereas data exist at the national level as to the total areas of land holdings (and were presented in Chapter

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1 Grass strips and terraces within fields are not mapped. Many of the large fields are divided into a number of rectangular units for ploughing.

two), no systematic study has been made of the variation in parcel size over the whole country. No survey of field size was carried out in Ha Khoeli, but the area of 110 fields which could be identified on the Thaba Bosiu Project's orthophotomaps were roughly gauged by planimeter. This suggested a mean parcel area of 0.49 ha. A number of small parcels were estimated at 0.1 ha, with the largest recorded as 2.6 ha.

Fragmentation and accessibility As not all the lands farmed by the people of Ha Khoeli were surveyed by even the crude planimeter method, it is not possible to comment on the size of household land holdings overall there. Data have already been presented in Chapter two, however, regarding the areas of land holdings over Lesotho as a whole. An indication was also given there of the proportion of Basotho households actually having rights to arable land nationally and in Ha Khoeli, and of the numbers of fields into which household land holdings are divided: at both levels of analysis it was shown that a larger proportion of households have two fields [1] than have any other number. Hamnett (1973, 42) quotes Morojele's comment on the 1960 Agricultural Census

> "that 'both the size and number of fields increase together fairly rapidly up to holdings of about 20 acres... The majority of the smallest fields are found in the smallest holdings. As fields increase in size, the majority are found in the larger holding groups...' until they reach a size of about 4.5 acres each. This suggests that those with few fields are worse off than those with many because

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1 In the 1970 Agricultural Census of Lesotho, a 'field' was defined as "a contiguous piece of land cultivated as one by the holder..." (Lesotho, 1972, 12); in the Ha Khoeli census, care was taken to include holdings defined as serapa or seratsoana (or jarete, if away from the village) under the description 'fields' for enumeration purposes.

> their size as well as their number is likely to be smaller; which leaves little empirical foundation for the argument that those with few fields might well enjoy a larger acreage overall: proportionately, they will tend to have even less than would be expected if all fields were the same size. This goes some way to validate the apparently illogical Sotho practice of thinking in terms of field numbers rather than field size." (Emphasis in original)

One possible reason for the smaller size of fields constituting the holdings of those with low total numbers of fields may be that these fields are sometimes the result of subdivision of larger parcels as land rights are reallocated from one generation to the next; those households with only one field are most typically young ones. Moreover, those households in the bottom stratum of field-holding are those most commonly forced to cultivate small pockets of soil hitherto neglected because of their inaccessibility, awkwardness or poor quality. This also helps to explain why households having the smallest numbers of fields tend to be those with the smallest fields. It is not possible directly to derive data from the 1970 Agricultural Census which might permit a more up-to-date assessment of the situation identified by Morojele and discussed by Hamnett, as field size is not tabulated against holding size and number of fields in holdings. It is relevant, however, to quote the following data on 'farm households' [1] in 1970, which suggest that such a situation probably still prevails.

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1 Defined in terms of land and stock holding. 98.75 per cent of these farm households in fact held land in 1970.

Table 4.1 Lesotho: fragmentation of farm land by size of holding [1]

Size of holding (acres)	Average no of fields per farm household reporting	Percentage of farm households with given no. of fields				
		1	2	3	4	5
Under 2.00	1	69.13	24.94	5.78	0.15	0.00
2.00 - 3.99	2	34.65	45.86	17.62	1.35	0.52
4.00 - 5.99	2	19.45	43.77	31.58	4.38	0.82
6.00 - 7.99	2	11.72	46.62	34.32	4.86	2.49
8.00 - 9.99	3	9.38	31.03	48.87	6.86	3.85
10.00 - 14.99	3	5.34	23.69	54.58	8.07	8.31
15.00 and over	4	3.15	9.19	33.85	21.49	32.33
Total	2	30.96	37.97	23.32	3.52	2.24

(Source: Lesotho, 1972, 69)

The inability of the Basotho nation to feed itself was shown in Chapter two. One of the factors indicated there as of obvious relevance to the low agricultural production of households was their small total holdings of arable land. It has now been shown, moreover, that although the size and shape of fields in Lesotho were fundamentally designed to maximise working efficiency, increasing demographic pressure on land resources has distorted the shape of many and reduced their size. Working lands of this sort with ox-drawn equipment, let alone machinery, is an inefficient operation, as will be indicated below. It is common in analyses of Sesotho farming to point to the fragmentation of lands as an impediment to agricultural progress, not only because of the unsuitability of small parcels for mechanisation but because of the length of time said to be wasted by the farmer

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[1] As these data were recorded and classed in acres, it is not possible to convert them to metric units.

in travelling between his home and his various fields. Certain comments must be made in this regard.

As has already been noted, an important consideration in the early allocation of scattered lands to Basotho households was the desire to share the best and the poorest arable resources equitably. Although the flux of reallocation over several generations has distorted original land-holding patterns, the existing arrangements in most Lesotho communities probably represent the fairest overall distribution of the remaining productivity of village lands that could be devised. This clearly impinges upon the question of inefficiency caused by the distance to be travelled to some land holdings. Especially when a chief's land allocation area incorporates several villages, a land-holder may have to travel past other communities on his way to his field in a far part of the area. This distance is rarely more than a couple of kilometres, however, (or, most relevantly expressed, approximately an hour with oxen and sledge). It can be seen from the scale of the map of Ha Khoeli that distances to the fields shown rarely exceed one kilometre; if these distances are doubled or even trebled to take into account Ha Khoeli's remotest fields, not shown on the map, the maximum journey time suggested above remains applicable.

Gay (1977, 69-73) examined this question more carefully in the case of five foothill villages in the Mpharane area of Mohale's Hoek district. These five communities resemble the sub-villages studied at Ha Khoeli in being scattered in a line on spurs between tributaries of a river below them, and in having their respective fields intermingled in the arable area,

so that many field-holders must pass other villages to reach their lands - although (as is true to a limited extent of Ha Khoeli) a tendency can be identified for most fields closest to a village to be held by members of that community. Gay found that mean distances from household to field for each of the five villages vary from 632 to 1093 m, with an overall mean distance of 861 m and an absolute maximum recorded of about 2.5 km. - a situation comparable to that apparently prevailing in Ha Khoeli. Noting that many villagers must pass the fields of people from other communities on the way to their own lands, Gay suggests that a process of trade-offs might be instituted to rationalise the inter-village allocations in this regard, arguing that the equitable distribution of land quality could be preserved but confined to smaller and more accessible areas for each village.

It is hard to imagine such a reallocation taking place on the basis of purely communal initiative and administration: the scope for disagreement is too great and the prospect of profit too small. Comprehensive reallocation has been achieved on part of the lands of Ha Ratau in the area of the Thaba Bosiu Project (see Chapter seven). This was carried out, however, on the instigation of the Project in order that arable land might be laid out between a new system of terraces; the holdings of all those affected were carefully surveyed before work began, and reallocations were made on the basis of these measurements, which were accepted by the villagers. Moreover, the area in question is one of relatively uniform, high quality soils.

More important than these logistical arguments about reallocation, however, is the question of the significance of

the journey to or between fields in contemporary Sesotho farming. Whatever the operation involved - ploughing, planting, harrowing, weeding, cultivating or harvesting - the distance to be travelled to the field is only a limited constraint on the amount of attention which can be devoted to the land. Those tasks which take more than a few hours to complete - notably ploughing and weeding - are more effectively constrained by the limits of animal and human stamina, which, unless a field is unusually difficult of access, are only marginally affected by the journey to the land. This factor also relates to the question of inter-field accessibility: few farming operations are so brief and light that it would be feasible to perform them on more than one field in a day. If a man's two fields were small and adjacent to one another he might be able to use a planter on them both in the same morning (the stamina of men and beasts not permitting work at midday or in the afternoon at this season). But the principal occasions when a Mosotho wishes to devote attention to more than one field in a day are those when he wants to inspect his crops - to assess the extent of frost damage, when weeding should begin, how much pests or birds have eaten, or whether the crop is ready for harvest. In none of these cases is the action resulting from such an inspection so quick and easy that it can normally be attempted on more than one field in a day, even if they are adjacent. As the inter-field distances quoted suggest, it is rarely onerous for a Mosotho to visit all of his two or three fields in one day to carry out these inspections.

It is argued that although certain incidental difficulties in Sesotho farming might be overcome if individuals' fields were

closer to their homes and to each other - assuming such an arrangement to be compatible with an equitable distribution of arable resources - the benefits accruing from a more spatially rational reallocation can only outweigh the great disruption caused if they are incorporated into a radical transformation of agricultural practice: the mechanisation of all operations [1], for instance, or irrigation, or the establishment of a commercial farming operation. Where these innovations continue to distribute the benefits of farming throughout the community they are laudable. But it is clear that, as was indicated by the experience of the 1976 Winter Cropping Programme (see Chapter eight), the proportion of Lesotho's arable land on which such transformations can successfully be effected will remain small. For the greater part of the Lesotho farming community, no major adjustment of the pattern of field-holding can reasonably be proposed.

As was stated at the outset, no profound analysis of Sesotho land tenure is attempted in the short space available here. The description just presented, however, has made clear the basic function of this system. This is to provide as many Basotho households as possible with some share of the basic subsistence resources offered by arable land. As such the system reflects not only the essentially egalitarian structure of Sesotho local government, but also the economic realities of contemporary rural life. As was argued in Chapter two, most

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1 Ease of mechanisation was a subsidiary consideration in the reallocation of holdings at Ratau to which reference was made above.

households must still rely on their farming for some portion of their living. Policy for agricultural change must be guided primarily by a recognition of this urgent and almost universal subsistence requirement. It is argued here that, outside those small areas where government is able to effect radical transformations in the mode of production, any attempt at a major restructuring of land tenure would be counter-productive (cf.Lesotho, 1975, 3).

The crops grown

Before starting a discussion of farming practices, it is necessary to state the relative importance of the crops grown in Lesotho. Sorghum was the staple in old times, but maize subsequently came to rival it in popularity, supplying a greater proportion of the solid diet while sorghum came to be used increasingly for brewing beer. It may be seen from Tables 4.2 and 4.3, however, that in recent decades the proportion of the total cultivated area devoted to maize has declined, while that planted with sorghum has increased. Wheat has been grown since the nation was formed, but its importance in the lowlands and foothills declined during the early decades of the century as Basotho land-holders lost the ability to export it. It is now most widely grown in the mountains, but the tables show that its popularity is increasing again in the other zones. It often grows surprisingly well on poor duplex soils and in adverse moisture conditions (Bevan and McKee, 1975, 11, 79). Peas and beans have also been grown on a minor scale for some time, although there has been a steady increase in the area devoted to the latter. Other minor crops include potatoes, barley, oats and other fodder. Potatoes are becoming increasingly popular,

particularly among land-holders in the northern lowlands; and some farmers in the Thaba Bosiu Project area have begun to grow asparagus as a cash crop.

Table 4.2 Lesotho: percentages of the cultivated area devoted to various crops, 1950 - 1970 [1]

	Maize	Sorghum	Wheat	Beans	Other (peas, barley etc)
1950	59.2	18.6	16.3	0.8	4.0
1960	49.8	20.9	20.6	1.7	7.0
1970	35.1	22.4	28.9	4.4	9.1

(Sources: 1950: Douglas and Tennant, 1952, 114; 1960: Morojele, 1963, 58-62; 1970: Lesotho, 1972, 71-75)

Table 4.3 Lesotho: percentages of the cultivated area devoted to various crops, 1950 - 1970, by zone

	Maize			Sorghum			Wheat		
	1950	1960	1970	1950	1960	1970	1950	1960	1970
Border Lowlands	62.4	41.1		18.4	22.0		17.6	26.0	
Lowlands	67.0	68.1	33.7	22.3	25,7	22.1	8.5	3.4	33.4
Foothills	62.0	53.6	37.2	24.7	26.4	28.5	9.5	13.8	23.0
Mountains	42.9	32.6	31.1	4.9	7.2	9.8	38.6	43.6	33.9
O.R.V.	63.2	45.6	45.4	25.4	32.7	32.7	10.0	15.0	8.0
LESOTHO	59.2	49.8	35.1	18.6	20.9	22.4	16.3	20.6	28.9

	Beans			Peas		
	1950	1960	1970	1950	1960	1970
Border Lowlands	1.3	3.8		0.3	5.7	
Lowlands	1.0	1.5	5.6	0.9	1.0	0.1
Foothills	1.0	1.7	5.3	2.5	2.5	1.3
Mountains	0.1	0.4	6.6	9.4	12.6	9.9
O.R.V.	0.8	2.7	3.4	0.6	3.6	1.2
LESOTHO	0.8	1.7	4.4	2.8	5.4	2.2

Note: 1. O.R.V. = Orange River Valley
2. Only one lowland zone was recognised in the 1970 Agricultural Census
3. Some other crops, such as barley and oats, are excluded from the Table.

(Sources: as for Table 4.2)

1. In this and some subsequent tables there may be slight incompatibilities in totals and percentages due to rounding.

More recent data from the area of the Thaba Bosiu Project (in the central lowlands and foothills), and from the single foothill community of Ha Khoeli, are presented in Table 4.4. The most striking difference between these most recent figures and the national ones for 1970 is in the proportion of the cultivated area devoted to beans. This increased substantially between 1974 and 1976, but slumped in 1977, with the proportions planted to maize and sorghum showing concomitant increases in that year.

Table 4.4 Thaba Bosiu Project area and Ha Khoeli: percentages of the cultivated area devoted to various crops, 1974 - 1977 [1]

PA = Project area
HK = Ha Khoeli

	Maize	Sorghum	Wheat	Beans	Peas	Barley, other fodder	Potatoes
	%	%	%	%	%	%	%
1974 PA	43.9	35.2	4.3	12.1	3.4	0.7	0.4
1975 PA	43.2	21.2	2.2	26.2	5.7	1.1	0.1
1976 PA	42.0	19.9	1.6	32.1	3.0	0.8	0.4
HK	41.8	23.4	7.6	10.7	13.3	-	1.0
1977 PA	50.4	31.4	1.2	15.4	0.8	0.2	0.6
HK	57.4	21.3	2.9	8.7	3.9	1.1	-

(Sources: Thaba Bosiu Project General Evaluation Surveys, 1974 - 1977, and Ha Khoeli census, June 1977.)

[1] In this table, and in subsequent references to Thaba Bosiu Project General Evaluation Survey data, calendar years refer to the summer season ending in a given year and to the winter of that year. For example, '1975' refers to 'summer 1974 - 75 and winter 1975'.

The trend represented by these figures describes the changing status of Sesotho agriculture. Beans have long been grown by Basotho, but are now gaining popularity as a cash crop, especially in the Thaba Bosiu Project area and in other areas where marketing facilities have been made easily available. The new commercial opportunity afforded by beans has been seized with alacrity by many Basotho; but fluctuations in the purchase price offered by the marketing organisation have also met with an immediate response. The slump in bean planting in 1977 thus reflects a drop in the price offered. The changing proportions of the cultivated area devoted to the other crops also represent the declining significance of the land as a direct contributor to household subsistence. Wheat may also be sold as a cash crop, and its cultivation has been encouraged by recent government schemes (see Chapter eight). It is suggested that the importance of maize as a household crop has declined - despite its continuing centrality in the rural diet - because growing numbers of families can afford to purchase imported, ready ground maize. Sorghum, on the other hand, provides the most traditional and best-loved items in the Sesotho diet: various sorts of porridge and, above all, beer. There is little large-scale trade in this crop, but it is generally hardier than maize wherever bird damage is not excessive. Moreover, the commercial brewing of sorghum beer is increasing, both for sale by individual households and in bars in the larger centres of population. For these reasons the area planted to the original Sesotho staple is again increasing [1].

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1 Helman (1971, 31) concludes from a series of microeconomic calculations that "... beans and peas seem to be the most profitable crop, followed by wheat and sorghum. Maize seems to be the least profitable one."

A number of changes may thus be observed in the relative importance of the various crops grown and in the economic purpose of this agricultural production. Much of the food grown is still required for domestic subsistence; but as the Basotho are drawn increasingly into the metropolitan economy, and as their dependence upon subsistence crops at last begins to be reduced by increasing rates of remuneration and growing opportunities for cash cropping, the type of crop produced is altering [1]. The discussion which follows will attempt to show whether Sesotho agricultural techniques and knowledge have adjusted accordingly.

The farming calendar

A brief examination of contemporary Sesotho farming methods will now be introduced with some notes on the agricultural calendar. Only three principal operations - ploughing, weeding and harvesting - need to be included in this discussion, as the timing of subsidiary tasks such as harrowing is dependent on these. Two other considerations encourage brevity in this section. Firstly, the farming calendar has been discussed by a number of other writers (Sekese, 1907, 64-68; Sechefo, 1909-1910; Ashton, 1939, 267-270; Sheddick, 1954,74-75; Mohapi, 1956, 33-38; Ashton, 1967, 123-130; Devitt, 1969) and it is not necessary to repeat these details at length. Secondly, any attempt at precision in these matters is invalidated by the substantial variation in the timing of the various operations - from year to year, because of the unreliability of the climate and the vagaries of the weather, and from farmer to farmer, due to the

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1 See also Poka, 1977, 2-5.

logistic difficulties often encountered in arranging certain operations (see Chapter five).

The divisions with which Basotho work out the progress of the year are closely related to agricultural events. 12 months are recognised in the year, but these are timed according to the phases of the moon. Adjustments are generally made for the resultant discrepancies immediately prior to the beginning of the agricultural season. Particular reference is traditionally made, in dating the new year,to the position of the Pleiades [1] in the heavens (Beyer, 1919; Mohapi, 1956, 34). The actual onset of the ploughing season, however, is determined by the arrival of the spring rains. In the 1976-7 season observed at Ha Khoeli, these came late and were then so heavy that ploughing in some fields was further delayed by waterlogging. They were followed, in November, by a late frost which severely damaged many of the young crops. Other things being equal, however, sorghum is the first of the principal summer crops to be planted, ideally in late August or September. Maize is planted later, principally in October: but it may be planted in September and the process often continues into November. Beans can be planted latest, commonly in November: they may provide an alternative crop for a farmer who has already seen the sorghum or maize he planted earlier fail. Peas are grown both as a winter and a summer crop in the lowlands and foothills; in Ha Khoeli, located in the latter zone, all the households recorded as planting peas grew them as a summer crop. Barley is best

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[1] Called *selemela se setšehali*, from *ho lema* (to plough).

known in the lowlands and foothills as a winter crop, but a number of respondents simply stated that "ha e na nako"(it has no date), planting it late in the summer on fields where the original crop had failed.

The practice of turning the soil over in the winter before the first rains is actively encouraged by the agricultural authorities in Lesotho, but only carried out by a minority of land-holders. Answers to questions about this in the Ha Khoeli census suggested that of the 206 fields enumerated, 29.9 per cent were winter ploughed in 1975 and 27.6 per cent in 1976. It is interesting to note, however, that many respondents to the Thaba Bosiu Project's first General Evaluation Survey in 1974 [1] were well aware of the desirability of winter ploughing. Asked the best month to plough for maize, 29.8 per cent said July and 25.1 per cent August, a further 40.3 per cent naming dates from September to November. The favourite month for planting maize was November (54.3 per cent), a further 19.8 per cent preferring October and, surprisingly, 17.8 per cent December. But it is not easy to carry out preliminary winter ploughing. The ground is hard, and the oxen are at their weakest in this season, before the spring rains produce fresh grazing for them. Moreover,communal grazing of stover in the fields at this season may delay cultivation.

A number of other constraints hinder the optimal timing of farming operations by Basotho land-holders, as was noted above.

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1 Question X.7

Even if the rains begin early and other climatic excesses are avoided, the large numbers of Basotho without immediate access to the means of ploughing may be seriously delayed as they negotiate to secure them (see Chapter five). The actual calendars of the central sample of 30 households studied in Ha Khoeli, which are presented in Tables 4.5 and 4.6, therefore show only a limited resemblance to the ideal scheme of ploughing and planting discussed above [1]. Winter ploughing is not shown on the diagrams. As ploughing and planting are generally simultaneous operations, separated at most by a day or two when a planter is used, these are shown by the single symbol 'P'. The two other principal operations, weeding and harvesting, are indicated by 'W' and 'H' respectively.

Rain first fell in useful quantities on 26th September, although it can be seen that a few farmers, principally those growing sorghum, had anticipated events and ploughed earlier that month. The bulk of the ploughing and planting took place during October, although some crops, most notably beans, were not planted until November. In connection with ploughing dates it is interesting to note a comment made by Mohapi (1956, 35): referring to those who are still planting sorghum in October, he speaks of "Basotho ba lemelang setonong sa ngoaha, joale ka ba mehleng ea kajeno " (Basotho ploughing late in the season, like those of today), implying that the mean planting dates for the various crops have steadily become later over the years.

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1 See also Thaba Bosiu Rural Development Project, 1976a, 2-4; Khomokhoana Rural Development Project 1976, 11-12.

Table 4.5 The farming calendar for a sample of Ha Khoeli households, 1976 - 1977

HH NO	FLD NO	CROP	SC	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
			x												
1	1	Maize					P							H	
2	1	Maize				P		- W -							()
3	1	Maize				P	- W -								(())
	2	Maize				P		- W -						H	
	3	Maize					P	- W -							()
4	1	Sor, mze	x			P		- W -							(())
	2	Maize				P		- W -						H	
	3	Maize					P	- W -						H	
5	1	Sorghum			P			- W -						H	
	2	Peas, mze				P	- W -								(())
	3	Maize				P	- W -								(())
6	1	Wheat							H						
	2	Beans					P		(())						
		Barley									P				
7	1	Mze, sor				P									(())
8	1	Maize				P	-	W -						H	
	2														
9	1	Sor, peas					P	- W -							H
	2														
10	1	Sorghum	x			P		- W -					H		
	2	Maize					P								(())
11	1	Maize	x				P	- W -						H	
	2														
12	1	Maize				P			- W -						(())
	2	Peas					P								(())
	3	Maize				P			- W -						(())
	4	Beans					P								(())
13	1	Mze, be, pe			P		-	W	-					H	
14	1	Maize	x				P	- W -						H	
	2														
	3	Sorghum	x			P	- W -							H	
	4	Maize	x			P									(())
15	1														
	2	Sorghum			P			- W -						H	
	3	Peas				P									(())
	4	Maize				P								H	
	5	Barley							P				H		
16	1	Peas	x		P					H					
	2	Maize	x			P	- W -							H	
17	1	Maize			P										(())
	2														
18	1	Maize				P			- W -						H
19	1	Maize			P		- W -								(())
20	1	Sorghum			P			- W -					H		
	2	Wheat				P				H					
	3	Maize				P	- W -							H	
21	1	Maize	x		P		- W -								(())
	2	Beans, peas	x			P			- W -					H	
	3	Sorghum			P			- W -							H
22	1	Maize				P	- W -								H
	2	Maize				P	- W -								()
23	1	Maize			P		-	W -						H	
24	1	Maize				P	-	W -							()
25	1	Beans				P		-	W -						(())
26	1	Sorghum				P	- W -							H	
	2	Maize				P	- W -								H
	3	Peas					P								(())
27	1	Maize			P		-	W -						H	
	2	Maize				P		- W -						H	
	3	Beans					P								(())
	4	Sorghum				P			- W -						H
28	1	Mze, beans	x			P									(())
	2	Maize				P									(())
	3														
29	1														
	2	Sor, mze			P			- W -						H	
30	1	Maize	x		P			- W -							H
	2	Wheat	x						H						

KEY

HH NO	Household number	P	Plough and plant	Mze	Maize
FLD NO	Field number	- W -	Weeding period	Sor	Sorghum
SC	Sharecropped	H	Harvest	Be	Beans
		()	Very small harvest	Pe	Peas
		(())	No harvest		

Table 4.6 The farming calendar for a sample of Ha Khoeli households 1976 - 1977, by crop

HH NO	FLD NO	CROP	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
		Maize												
1	1				P	- W -							H	
2	1			P		- W -								()
3	1				P	- W -								(())
	2			P		- W -							H	
	3				P	- W -								()
4	2			P		- W -							H	
	3				P	- W -							H	
5	2			P	- W -									(())
	3				P	- W -								(())
7	1			P		- W -								(())
8	1				P	- W -						H		
10	2				P									(())
11	1				P	- W -							H	
12	1				P		- W -							(())
	2				P									(())
	3				P			- W -						(())
13	1			P		- W -							H	
14	1				P	- W -							H	
	4				P									(())
15	4			P										(())
16	2				P	- W -								H
17	1			P										(())
18	1				P		- W -							H
19	1			P		- W -								(())
20	3				P	- W -							H	
21	1		P			- W -								(())
22	1				P	- W -							H	
	2				P		- W -							()
23	1			P		- W -						H		
24	1				P	- W -								()
26	2				P	- W -								H
27	1			P		- W -							H	
	2				P		- W -						H	
28	1					P								(())
	2					P								(())
29	2				P			- W -					H	
30	1			P			- W -							H
		Sorghum												
4	1				P	- W -								(())
5	1			P			- W -						H	
7	1				P									(())
9	1					P	- W -							H
10	1				P		- W -						H	
14	3					P	- W -						H	
15	2			P			- W -						H	
20	1			P			- W -					H		
21	3			P			- W -						H	
26	1				P		- W -						H	
29	2			P				- W -						H
		Beans												
6	2					P								(())
12	4					P								(())
13	1			P			- W -							(())
21	2				P			- W -					H	
25	1				P			- W -						(())
27	3					P								(())

KEY

HH NO	Household number	P	Plough and plant	Mze	Maize
FLD NO	Field number	- W -	Weeding period	Sor	Sorghum
SC	Sharecropped	H	Harvest	Be	Beans
		()	Very small harvest	Pe	Peas
		(())	No harvest		

Weeding is carried out in high summer, as the case of Ha Khoeli illustrates. December is the month of most intensive activity, although some weeding goes on as late as February. In his description of traditional Sesotho agriculture, Mohapi (1956, 36) writes of January:

> " Basotho joale ba fera maphephe. Ke khoeli eo ho seng letsatsi leo ba sa hlaheng masimong." (1)

Bird-scaring occupies much less of the Mosotho land-holder's time than in the old days. No lephephe shelter for the bird-scarers was seen at Ha Khoeli, nor was anyone ever encountered using a traditional tsoibila stick to fling pellets at the birds. As will be noted below, however, scarecrows and medicines are still commonly used.

The recording of harvesting dates at Ha Khoeli was less complete, although, as Tables 4.5 and 4.6 show, many fields returned a negligible harvest or none at all. The haphazard collection of green maize, lehoetla, may occur in late summer and autumn, but the full crops of both sorghum and maize are left to dry for some time before finally being harvested in the winter months of June and July [2]. (As the sorghum hardens, it becomes resistant to attack by birds.) Subsequent winter tasks include the shelling of maize and the threshing of sorghum.

This brief outline of the farming calendar has so far been restricted to summer crops. Hardly any winter cropping was

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1 "Now the Basotho are roofing their bird-scarers' shelters. This is the month when not a day fails to see them in the fields."

2 Bevan and McKee (1975, 61) state without explanation that "Leaving maize in the field to dry with the frosts is not good practice."

observed in Ha Khoeli, although wheat and peas are grown as winter crops in the lowlands and foothills. Research in the Thaba Bosiu Project area (Thaba Bosiu Rural Development Project, 1976b,1) suggests " that wheat is distinctly more popular in the lowlands than in the foothills", and that peas are becoming more popular than wheat. Although recent government sharecropping schemes have stimulated interest in wheat (see Chapter eight) the significance of winter cropping remains minor.

Perhaps because the planting of winter crops does not depend so directly upon climatic developments, the date of the operation is more variable than for summer crops and may depend upon the availability of manpower for ploughing, the date upon which a field is harvested and made available for a winter crop, or the decision that a summer crop has failed and may be ploughed in. April to July is the general planting period for winter crops (Thaba Bosiu Rural Development Project, 1976b, 5). Unless an energetic farmer devotes time to bird scaring in October or November there is then a hiatus until harvest time in the latter part of the summer (December - February), as neither peas nor wheat are weeded.

In restricting itself to the three principal activities of ploughing/planting, weeding and harvesting, this outline of the farming calendar has already suggested the limited attention generally devoted by the Basotho to their fields. The question of how much the Basotho <u>farm</u> is directly relevant to the distinction between modes of exploitation posited at the beginning of this chapter. It may be considered further in a second discussion of the agricultural year, in which farming methods

will be described in more detail.

Farming methods

Ploughing The traditional Sesotho method of turning the soil with a hoe was not encountered, the use of a metal plough having long been almost universal. A spade is occasionally used instead, however, for small or inaccessible pockets of land. A growing minority of land-holders (most numerous in the northern districts of Lesotho) hire tractors to plough their fields. Consideration of tractor ploughing is deferred for the present.

Men usually set off to plough early in the morning. It is common for them to leave at very first light, about 5 am., although some may not bother to set off until eight or nine o'clock. Ashton (1967, 124) writes that from two to eight oxen are used to make up a span, but at Ha Khoeli only teams of four or six were observed. Many Basotho apparently took to ploughing with horses during the rinderpest epidemic at the end of the nineteenth century, but this is now very rare and was not observed. One team of donkeys was seen ploughing, in the lowlands of Maseru district. In Ha Khoeli, about 60 per cent of the animals in plough teams were mature oxen; the remainder were young animals, cows and occasionally bulls. The team, which is yoked up in the village, has the two strongest and most intelligent beasts in front and the weakest in the centre (when six animals are used). Ideally, as Ashton (1967, 124) notes, the composition of the team and the position of each animal should be constant through the season, but this is rarely possible. In a team of six it can often be seen that the middle pair, which are commonly young animals, are only making a minor contribution.

They do, however, learn the discipline of the yoke.

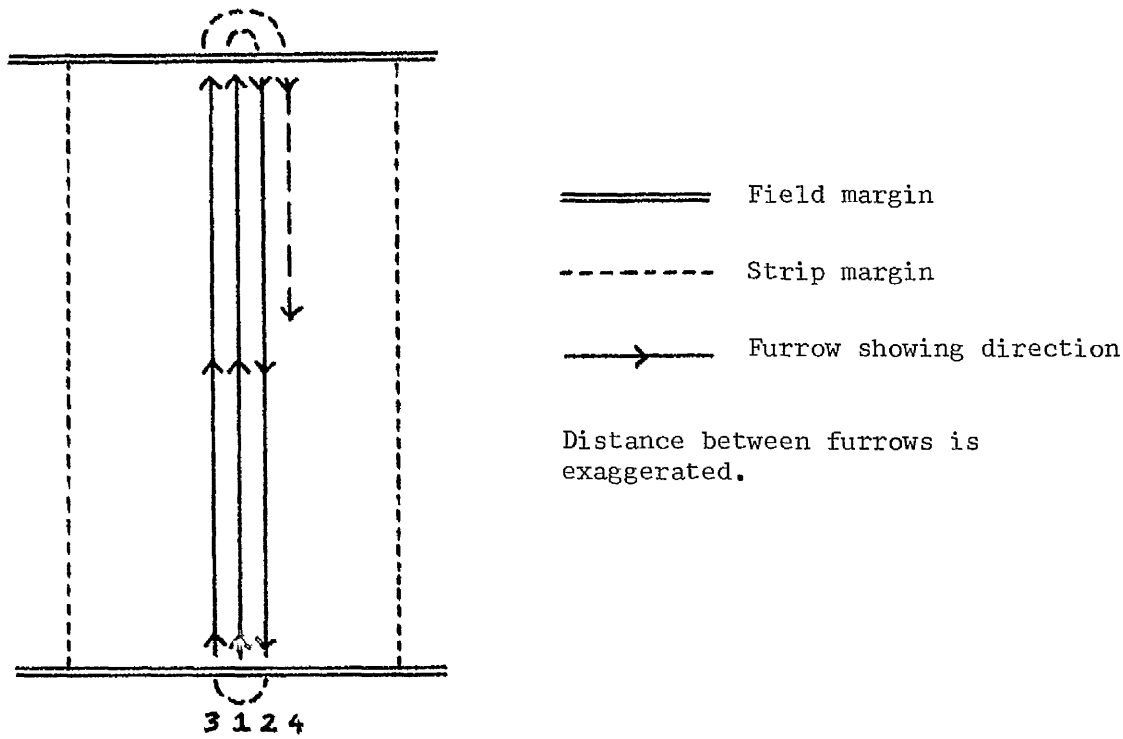
The team is usually yoked together in the village, so that the yokes do not have to be carried to the field. The yokes used are wooden poles, purchased at stores and often of considerable antiquity, through which are passed locally cut pegs: straps of hide are fastened to the latter and passed around the animals' necks. A metal chain connects the yokes to the plough. Another reason for yoking the animals in the village, however, is that the chain may first be attached to a sledge on which the plough is transported to the field. If no sledge is available, the plough is usually attached in the village and dragged roughly along behind the team to the field.

Although reversible ploughs are used in the mountains, all those seen in Ha Khoeli had a fixed mouldboard which turns the earth to the right. These ploughs, which are all of metal and are imported from South Africa, have a coulter and often a wheel in front of the share. The way in which they were most commonly used in Ha Khoeli was the reverse of the pattern described by Ashton (1967, 124) from his observations in the 1930s. As has already been noted, the field is divided for ploughing into a series of strips with a roughly standard width of 7-10m., which is maintained whatever the size or shape of the field (mostly excepting fields divided by grass strips into smaller sections). Perhaps because its width approximately coincides with that of the Sesotho acre, this strip is often termed _akere_, although its correct name appears to be _tema_. Having set out by eye the _tema_ he intends to work, the ploughman usually proceeds _ho lema hoto_ (to plough by the _hoto_ [1] method). The first furrow is ploughed

[1] This word does not appear in the Sesotho dictionary.

down the centre of the strip (furrows are generally 15-25 cm. deep). At the end of the strip the team turns to its right and ploughs the second furrow adjacent to the first. As the plough throws the earth to the right, this creates a slight ridge at the centre of the field. At the end of the second furrow the team again turns to its right, and ploughs the third furrow on the other side of the first one. This clockwise procedure continues, ploughing outwards from the centre until the whole strip has been worked (see Figure 4.2). A new strip may then be begun in the same way. The method is identical to the traditional English one described by Orwin and Orwin (1967, 32-33) except that the central ridge is not "topped out".

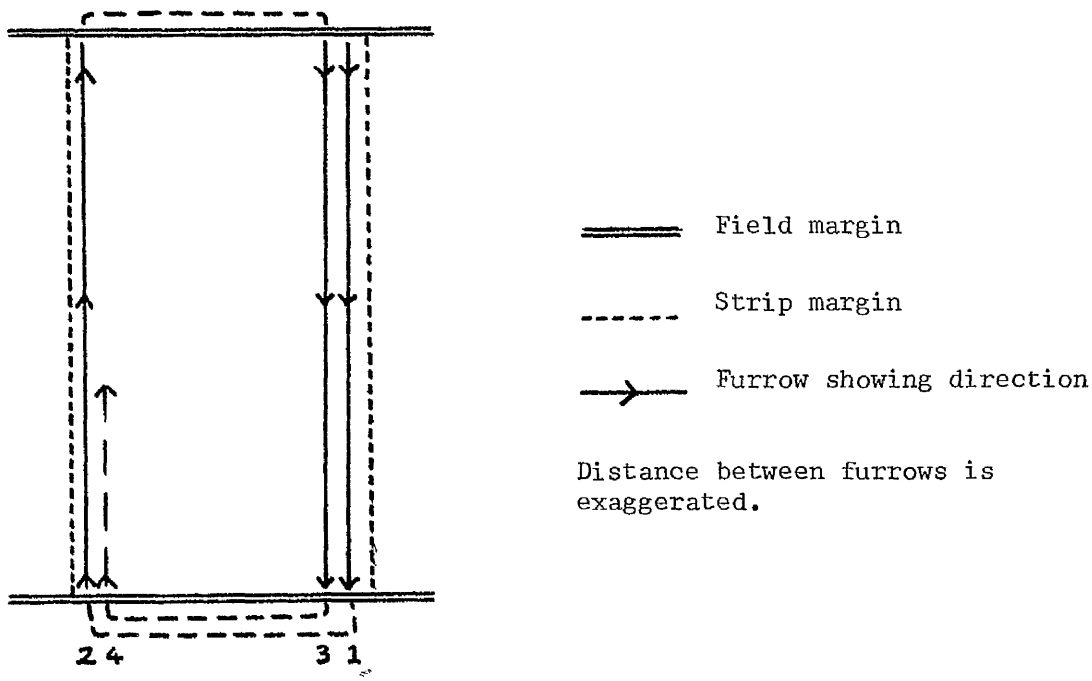
Fig. 4.2 Ploughing by the 'hoto' method



The system described as standard by Ashton (1967, 124) was termed by Ha Khoeli informants ho lema hare (literally, to plough

within). Here, the strip having been defined by eye, the team ploughs the first furrow along one of its longer edges so as to turn the furrow slice towards the centre of the strip. At the end of the strip it turns to its right and moves to the far side of the strip, where it ploughs the second furrow, again turning the soil towards the centre. It moves across the strip again to plough the third furrow adjacent to the first, and so on until the whole strip has been filled in (Figure 4.3). It can be seen

Fig. 4.3 Ploughing by the 'hare' method



that towards the end of working a strip by the hoto method, and in the early stages of the hare method, the team must move from one side of the strip to the other between each furrow it ploughs. Particularly where the strip is of above average width, it is common for the usual hoto method to be abandoned when this stage is reached and for the margins to be filled in by the hare method. The edges of irregularly shaped fields are often treated in this

way. This marginal working was the commonest use of the hare ploughing pattern observed in Ha Khoeli.

The essential human team to accompany the oxen consists of one person to hold the plough and one to drive the oxen (the 'voorloper' or leader described by Ashton (1967, 124) was not observed). Ashton (1967, 124) writes that the lack of male labour sometimes forces girls and women to take the plough, but this was never seen in Ha Khoeli or elsewhere. Most typically the ploughman is an adult, the driver a herdboy who carries a whip. In some cases, however, the plough may be held by a teenage or even smaller boy, either because he is learning to plough under his father's supervision, or because his father (or the adult responsible) has stayed at home, judging the boy capable of the task (which most of them roughly are). Alternatively two adult men may work together, taking it in turns to hold the plough and the whip: the former is heavy work. Often extra men and youths may be present, merely looking on or helping from time to time. Their dogs and the boys amuse themselves catching the field rats disturbed by the ploughing: these may be eaten immediately or taken back to make a meal in the village.

Skilled ploughmen do not usually resort to the whip often, unless an animal is judged unreasonably reluctant to work. But it is kept whirring over the oxen's backs, and is spun over their heads in the direction they are to turn at the end of the strip. When such a turn is to be made, the names of the animals on the inside of the turn are also called. The team are constantly urged on with cries and whistles, the former consisting

chiefly of the names of the cattle together with such exhortations as "hoto!" or "likhomo tse kana!" (so many cattle!). The wide vocabulary of whistles and words with which ploughmen and herdboys address their cattle would be an interesting subject for study.

Although the skill required to keep the plough in a straight line should not be underestimated, the most difficult operation is the turn at the end of the furrow. Some confusion often breaks out here, particularly in the many cases where there is a stream, a steep slope or a thicket of bushes at the edge of the field. Substantial expenditure of time and effort may be required of even the skilled ploughman in these circumstances. It should be noted, on the other hand, that a really skilled man can run a team single-handed, simply by calls to his cattle and occasional flicks of the whip (held in one hand while the plough is guided with the other) - if there are no serious physical obstacles he can even turn the team in this way. As the team turns, the ploughman generally tries to lift the implement as much as possible to prevent it gouging into the ground, and at the same time to scrape the earth off the mouldboard with a stick. He must then jerk the plough back into line ready for the next furrow.

No ploughing operation was ever observed where refreshments were not provided and consumed at the edge of the field. These are commonly brought from the village by the women of the household, who come out to the lands in mid-morning. The consumption of joala ba mabele (sorghum beer) is the sine qua non of Sesotho ploughing, and its provision is expected by the

men ploughing a field whatever their relationship with the holder. The food most usually accompanying it is thick maize porridge; optional extras include tea, motoho (a thinner porridge), bread and beans. Breaks of an hour or more are common, during which the plough team is often left standing yoked in the furrow.

It is rare for ploughing to continue after midday, unless a letsema [1] working party is in progress or there is some other compelling reason for urgency. The summer heat and the fatigue of men and animals usually impose a limit of about five hours' ploughing work per day; occasionally the team may work for two or three hours early in the morning and return to continue in the late afternoon. The time taken to plough a field varies not only with its size, but also with such factors as the softness of the ground, the size, strength and number of the teams working and the urgency felt in the operation. Ashton (1967, 125) suggests that "The time taken to plough a field varies from two to six days under ordinary conditions". At Ha Khoeli the average time was observed to be three days. In any event, it is unlikely that a household would devote more than 15 days a year to ploughing, unless it held an abnormally large acreage, had many family ploughing obligations to fulfil or entered into several sharecropping contracts.

Growing numbers of land-holders, particularly in the northern lowlands of Lesotho, are hiring contractors to plough

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[1] See Chapter five.

their fields by tractor [1]. This is a trend which may be expected to continue. It is not restricted to unusually wealthy households: particularly since recent wage increases on South African mines, many families with an income from members working abroad have the cash to pay a contractor. As no research was made into the efficiency or economic benefits of tractor ploughing, it is not possible to argue authoritatively on such questions here [2]. It is clear, however, that although in Lesotho conditions the extra depth of cultivation it offers is an important advantage (particularly on duplex soils),[3] tractor ploughing does not radically alter the prospects of a good harvest or otherwise transform the economic parameters of crop-raising in Lesotho. Improper use of disc ploughs and the natural tendency to plough too quickly with a tractor may in fact be harmful to germination (Bevan and McKee, 1975, 21,23). The more thorough cultivation of the soil usually benefits the crop, but numerous hazards may still intervene later in the season: and the intensity of tractor cultivation is rarely matched by the thoroughness of subsequent farming operations. Moreover, as is often argued, the full benefits of mechanisation cannot be realised on small parcels of land. On the other hand, it has already been pointed out that comprehensive reallocation or consolidation - to permit mechanisation or for any other purpose - is not at present advisable in Lesotho.

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1 The percentage of the Thaba Bosiu Project area's General Evaluation Survey fields tractor ploughed in the period 1974 to 1977 fluctuated between 11.4 per cent (1977) and 15.7 per cent (1976). In the Khomokhoana Project area (Poka, 1977,6) the percentage of fields tractor ploughed was estimated to rise from 44 per cent in 1971 to 52 per cent in 1975.

2 See Van Oosten, n.d., Vassilion, 1977

3 See Bevan and McKee, 1975, 20-23.

In the more productive parts of the northern lowlands - where the tractor population density is higher than elsewhere - the ease and efficiency with which a field can be ploughed by tractor makes the operation an economically attractive proposition. The delay involved in assembling enough animal traction, of adequate strength for the job, may cancel out the cost advantage of ploughing by oxen: late planting may cause severe day-length problems later in the season. Tractor contractors are active in these areas: they find wheat a particularly attractive crop (Poka, 1977, 7-8).

It must be suspected, however, that those land-holders elsewhere who pay the extra sums required for tractor ploughing do so without a careful economic appraisal of the likely benefits,or in order to experiment with the method. Outside those small areas where the full benefits of mechanisation can be realised in the ways described, the increasing use of tractors is more likely to be a function of the availability of off-farm income to pay for the change in the mode of supplementary subsistence than to be an integral part of any approach to self-sufficiency.

Planting Seeds may either be broadcast, or row planted by hand or planter. The old method of broadcasting is still the most widely practised; the planter is an expensive implement, and few people bother to plant rows by hand. Basotho most favour the planter for maize and beans; although many believe it should be used for sorghum, fewer people actually bother to do so. It is interesting to note that in a survey of 320 respondents in the Thaba Bosiu Project's Area III (largely in the foothill zone), the planter was unanimously rejected for wheat:

Table 4.7 Planting methods

(Question: Which is the best method of planting these crops?
-Planter plate/rows: hand/broadcast/other)

	Planter (%)	Broadcast (%)	Rows: hand (%)	Other (%)
Maize	72.8	15.9	10.6	0.6
Sorghum	70.6	25.3	3.8	0.3
Beans	71.6	17.5	10.3	0.3
Wheat	0.0	98.8	0.3	0.6
Peas	40.0	56.3	2.5	0.6

(Source: Thaba Bosiu Project Planning & Evaluation Survey IB, 1975, Q.40)

Tractor-drawn seed drills are often used for wheat in the northern lowlands.

At Ha Khoeli in the summer 1976-7 season, only two or three fields were seen to be row planted by hand. In the 1977 census carried out there, 19.4 per cent of the fields cultivated in the 1975-6 season were said to have been planted by planter, while use of a planter was reported for 17.3 per cent of the fields farmed in 1976-7. The proportion of the holdings repeatedly enumerated in the General Evaluation Surveys of the Thaba Bosiu Project area between 1974 and 1977 on which use of a planter was reported appears to have been much higher, and to have risen from 49.5 per cent in 1974 to 53.3 per cent in 1977; meanwhile the incidence of broadcasting fell from 47.7 per cent in 1974 to 43.8 per cent in 1977, while the proportion of row planting by hand remained a negligible one to three per cent. Taking the single survey year of 1977 as an example, the crop with the highest proportion of fields sown by planter was beans (65.8 per cent); for maize the proportion was said to be 59.3 per cent, and for sorghum 41.3 per cent. In the Phuthiotsana Project

area of Berea and Leribe districts, 31 per cent of the fields were estimated to be planted by broadcasting in 1975-76 (Phuthiatsana Irrigation Project, 1977b, 15); but in the Khomokhoana Project area this percentage had fallen to a negligible three to five per cent by 1975-6 (Poka, 1977, 8); 85 to 95 per cent of the fields were planted with a planter and animal traction, tractor drawn equipment being used for the remainder.

When seed is broadcast, this is done immediately before the land is ploughed. The seed is scattered a strip at a time by a man holding it in a fold of his blanket, which he will put on for the purpose if he has removed it in the heat. On a strip of average width, he will normally stride up and down once, walking quickly and flinging out a handful of seed about every three paces.

Planting with a planter is a more careful and time-consuming process, but if not carried out on the same day as ploughing is normally performed within a day or two of the latter operation. Two cattle are normally used to pull the implement, but in addition to the two men common in ploughing a '<u>voorloper</u>' may often be observed in planting, leading the animals by a strap attached to their horns so as to ensure that they proceed in a straight line. It is not necessary, of course, to adopt either of the procedures described for ploughing a strip, the team simply working from one side to the other. Some farmers use their planters to disperse ash, fertiliser or a mixture of the two along with the seed. Most of the planters seen in use exhibited a variety of minor but time-consuming faults, notably when nuts and bolts in the mechanism linking the wheel to the rotating plate worked

loose and fell off. Few of those who own these implements possess more than one plate. Although use of a planter helps to ensure correct planting depth and economical seed dispensation, several factors thus tend to impede maximum efficiency. If there are no mechanical or other breakdowns, however, a field which takes the average three days to plough can be planted by planter in two or three hours.

Harrowing As was shown in Chapter two, harrows are a more common possession than planters; but the number of fields where a harrow is used is more than proportionately greater. The usual harrow is a much cheaper implement, and as a crude metal frame set with spikes it is far less delicate. It is therefore more readily lent out, and when it is hired the rate per field is lower than for the planter. (It covers a wider strip of ground in each pass and can be drawn over the field more quickly than the latter.) Disc harrowing by tractor usually follows tractor ploughing; some disc harrowing with animal traction also takes place.[1] In the Ha Khoeli census it was reported that 49.0 per cent of the fields cultivated in 1975-6 were harrowed; in 1976-7 the proportion was 45.8 per cent. Over the period of the Thaba Bosiu Project's General Evaluation Surveys the proportion of fields harrowed in the area rose steadily from 18.8 per cent in 1974 to 32.0 per cent in 1977.

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1 It is interesting to note Bevan and McKee's (1975,22) suggestion that use of a spike tooth harrow may often be safer in Lesotho conditions than discing, as the latter operation tends to cause excessive pulverisation of the soil. They observe that harrowing is necessary to break most Lesotho soils down to a satisfactory seed bed after ploughing.

Harrowing may take place either immediately before or after planting, or during the subsequent months of early summer. When a spike toothed harrow is used, it is the crudest of the farming operations. The implement is attached to the yoke of two or occasionally four oxen, which are led over the field by a strap as when a planter is used. As it is not necessary to proceed in a straight line, a single man or boy can control the team for this task. The harrow is often weighed down with one or two logs, but it may still be necessary to cover the field several times before the clods of soil are broken down to a satisfactory size.

Weeding After these operations at the beginning of the season, which rarely occupy more than two or three weeks in total, there is a hiatus until it is judged to be time to begin weeding. This task is the largest and most tedious event in the agricultural calendar. If a crop has been row planted, the work can be greatly accelerated by the use of an ox-drawn cultivator. The proportion of fields weeded by cultivator tends to be slightly smaller than the proportion where a planter was used. In 1975-6 at Ha Khoeli it was 18.4 per cent, falling to 15.6 per cent in 1976-7. Incidence of cultivator use was again rather higher in the General Evaluation Survey area, rising from 35.7 per cent in 1974 to 47.7 per cent in 1976 and falling to 38.4 per cent the following year. In the 1977 technical methods survey the proportion of households weeding by cultivator was 27.9 per cent [1]. In the Phuthiatsana Project area, a cultivator was used on a similar proportion of fields in 1975-76. (Phuthiatsana

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[1] See Appendix II, Q. 17.

Irrigation Project, 1977b, 19); but in the Khomokhoana Project area (probably the most productive part of the northern lowlands) the percentage appears to be rather higher in years of average or below average rainfall (Poka, 1977, 6-7).

Like the planter, the cultivator is drawn by two or four oxen, led from the front, with one man holding the implement and a third holding the whip. Progress is not quite as fast, as two blades are being pulled through the earth. Care must be taken not to damage the crops, although some are inevitably cut down by the implement or trampled by the oxen. Although the cultivator is relatively efficient between the rows of crops, hand weeding is still necessary close to and between the individual plants. The latter operation takes longer than the actual cultivating: even if the fastidious farmer runs the implement along each row twice, it is only a morning's work to cultivate the average field.

Weeding a field entirely by hand takes much longer, although it is difficult to generalise because of the variations in the numbers working on a field and in the intensity with which they tackle the job. Sometimes a letsema party is held (see Chapter five) in which the average field can be weeded in a day by a group of 20 or 30. It is more common to find groups of two to half a dozen weeding; and frequently a single woman may be seen, bent under a straw hat and singing to herself to relieve the monotony of the task. Overall, the proportion of male to female labour in weeding is approximately 1:4 [1]. If any

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[1] See Appendix II, Table 1.

generalisation is to be made about the 'average' weeding operation, a group of three or four women - perhaps a wife and daughter and a couple of friends or relations [1] - may go to the lands every day, five or six days a week. The group may alter slightly in composition from day to day, but if it persists with the work and stays in the fields, as is common, from early morning to mid or late afternoon [2], it may weed the 'average' field in one to two weeks. Many women have commitments to weed fields other than their own, however, and some people tackle the work less vigorously than others. It is therefore common for women to devote a major part of their time to weeding from December to February.

Nearly every household owns at least one hoe, which is the principal tool for hand weeding. Some people use a three-pointed stick or their bare hands, in which case they may sit on the ground to work. The progress of the workers across the field is usually ragged, although some people weed in precise straight lines. The weeding is never fully effective, as some weeds may grow again after being turned over and others may be missed. Some damage to crops by hoe blades is unavoidable, although some workers take care to heap a little earth around each stem in maize fields. The weeds pulled out are either left stacked in the fields, or are carried back to the village

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1 See Chapter five.

2 Food and children are taken out to the fields with the workers, and there may be one or two substantial breaks for refreshment.

for use as fodder. If abundant rain falls soon after a field has been weeded, the vegetation around the crops may be dense again after only two or three weeks, but few Basotho ever judge it worthwhile to weed a field a second time [1]. Awareness that assiduous weeding improves the prospect of a good crop is universal, but the impression was often obtained that most people view weeding as a matter of fulfilling a standard obligation by working over the field once. It may of course be argued that by the time people can get around to weeding a second time the crops are stronger and better able to withstand the competition of other vegetation[2]; and that the high chance of damage by such hazards as drought or pests renders the prospect of tangible profit from a strenuous second weeding too low. In any case, most Basotho seem to feel that they have better ways of spending their time.

Bird scaring This is true also of bird scaring, which figures prominently in descriptions of 'traditional' agriculture such as Mohapi (1956, 36, 41) and Ashton (1967, 128), but which was not seen to absorb much of people's energies or time at Ha Khoeli. While few people - adults or children - make expeditions to the fields especially to scare off birds, the erection of scarecrows of various sorts (litšosa) is common. Most usually these are white flags or scraps of coloured plastic fastened to sticks; tin cans, sometimes containing a stone, may also be hung up among

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1 See Appendix II, Table 2.

2 In particular, clean weeding of maize after the crop is 60 cm high is not essential for satisfactory production (Bevan and McKee, 1975, 61).

the crops to frighten the birds with their rattling.

As will be noted again below, the burning of agricultural medicines (ho upa) at the edge of fields continues to be a common practice. Moupello medicine may be burnt to protect a crop against pests or simply to strengthen it as it ripens (Ashton, 1967, 127-128); but its commonest use now appears to be against birds. Moupello smoke may often be seen wafting over the fields, particularly those of sorghum, in the late summer and autumn; the operation is usually carried out in the early morning,when the air is still.

Harvesting and threshing Apart from these minor efforts against birds, Basotho give little attention to their crops until harvest time. Harvesting is often a diffuse operation, particularly in the case of maize. People may thus go to the field from time to time to collect a bag of maize cobs or sorghum heads. More concentrated efforts to harvest the crop quickly tend to be made with wheat and beans, in which case a family may work for most of the day or be joined by many other people in a letsema working party.

Wheat is reaped with sickles (which most households own) and sometimes stacked into a small rick (ntloana) at the side of the field to await threshing. The latter operation may be performed by machine, if, as at Ha Khoeli in 1977, a number of wheat growers group together and hire one from the government or a contractor. If threshing is done by hand it may take place in the village or on a circle of beaten ground in the fields known as seotlo (from ho otla,to strike). The threshing

of sorghum and beans is also commonly done on a seotlo, which is some three to five metres in diameter and is carefully swept before the work begins. With wheat, a common preliminary is to beat a handful at a time against a stone or the floor of the seotlo, breaking off the grains or sometimes the whole head. Further beating is then done with a stick, which loosens the remaining wheat from the chaff. After the wheat has been carefully collected from the seotlo floor, it is winnowed several times: as with sorghum, a metal basin of grain is poured from shoulder height into another basin on the ground. Whenever threshing is taking place, the stranger is advised not to tread on the seotlo or other piece of ground where the harvest is lying. It is believed that this may somehow reduce the quantity or impair the quality of the crop.

Beans and peas are commonly gathered into sacks in the fields and brought back to the village for threshing to separate them out of their pods. The harvest may be an occasional task, or a family group or letsema may make a concerted effort to bring the whole crop in at once if it is felt to be urgent. Threshing may sometimes be done by cattle driven around the seotlo ; more usually it is done with a stick on the ground. It is followed by an interminable process of sorting - whether for sale or domestic consumption - which may occupy the spare moments of women at home for many months: the beans or peas are scattered a handful at a time on a piece of sacking and the bad ones individually picked out.

Sorghum heads are broken or cut off the stalks with a sickle, and put in sacks to be brought back to the village or carried to

the seotlo. Some preliminary sorting may take place at the side of the field, however, the mesohlo being separated out: these are heads which have been attacked by birds and have no good grain remaining. The threshing of sorghum is a vigorous task, the heads being beateh on the ground with a straight stick or knobkerrie. The work is often given rhythm by the singing of songs especially associated with sorghum threshing. One large sorghum threshing letsema observed (attended by about 30 women and 20 men) thus become a vigorous dance, with rows of people beating and others sifting and winnowing.

Maize cobs are usually brought back to the village in sacks: as these are heavier than sacks of other crops, a sledge may often be used for the purpose. The threshing of maize tends to be carried out in spare moments, and the cobs may be stored in sacks in the household for some time. Apart from hunger, one consideration which may prompt a woman to thresh some of her maize is the desire to burn the cobs (ligo) for winter warmth afterwards. The maize is again beaten on the ground with a stick, after which the cob may be rolled in the hand so that the kernels fall off. If some maize is to be kept for next season's seed, a farmer may remove the smaller kernels at either end of the cob and leave the best ones on the cob for storage.

Most households in the lowlands and foothills probably now send their wheat and maize to the mill for grinding, but the traditional method of using two stones is still common. In this arduous process a woman places a handful of grain on a large stone (leloala), whose top is smoothed and hollowed. She then grinds it with a smoother, elliptical stone (siloana).

The smoothness of both stones ensures that a fine flour can be obtained, but the work is slow and tiring: it is understandable that any woman with the 20c to spare should send a child with a donkey and a sack of grain to the mill.

Harvesting and threshing do not thus place a heavy demand upon the time of Basotho land-holders. Both operations tend to be carried out haphazardly, when the time and inclination present themselves; but if a household attempts to complete them as soon as possible for all its crops it is unlikely to be occupied for more than a week or ten days.

The Basotho as farmers: yields and profits

It has been shown that Basotho land-holders do not invest large amounts of time or effort in their agricultural operations. The results of their labours, expressed in kilogrammes per hectare, are not abundant. Table 4.8 shows trends since 1949/50 in the yields of the principal crops for Lesotho as a whole. As is noted in the table, yield estimates in the 1949/50 agricultural census have since been considered inflated. Despite this, and despite the fact that yield figures for individual years may be rendered less meaningful by climatic conditions, it is possible to infer a trend of declining productivity for all the crops shown. More recent data for the areas of four agricultural development projects show more clearly how fields may fluctuate from year to year, but confirm the low output per hectare realised by Basotho land-holders.

Table 4.8 Lesotho: yields of the principal crops, 1949/50 - 1970 in kg./ha.[1]

1949/50

	Maize	Sorghum	Wheat	Beans	Peas
Border lowlands	900	670	220	220	220
Lowlands	1120	790	450	450	450
Foothills	1460	1010	1230	340	670
Mountains	1460	900	1460	220	1120
O.R.V.	1120	1010	1010	340	900
LESOTHO	1180 1230	900 912	1010 1970	340	1010

1960

	Maize	Sorghum	Wheat	Beans	Peas
Border lowlands	540	540	610	160	500
Lowlands	720	850	740	360	520
Foothills	990	940	830	250	720
Mountains	870	790	940	520	760
O.R.V.	870	990	1050	450	1190
LESOTHO	830	850	850	360	740

1970

	Maize	Sorghum	Winter wheat	Summer wheat	Beans	Peas
Lowlands	520	630	560	470	200	360
Foothills	500	830	430	540	310	200
Mountains	650	610	-	610	130	380
O.R.V.	340	650	360	310	200	90
LESOTHO	520	700	540	560	220	340

Note: 1. O.R.V. = Orange River Valley.
2. Morojele (1963, 56) suggests that yields were overestimated in the 1949/50 agricultural census due to unsuitable survey techniques.
3. Only one lowland zone was recognised in the 1970 agricultural census.
4. Figures are rounded to the nearest 10 kg./ha.

(Sources: 1949/50: Douglas and Tennant, 1952,98-110,114;1960: Morojele, 1963,58-62; 1970: Lesotho, 1972, 71-75.)

[1] Unless otherwise stated, yield data in this and subsequent tables derive from farmers' statements of their harvest totals. Farmer information on this subject has generally been found to be accurate in Lesotho. In some cases the data were originally recorded in bags or tins per unit area. A bag is assumed to weigh 90 kg. and a tin 18 kg.

Table 4.9 Thaba Bosiu Project area: yields of the principal crops, 1973 - 1977 in kg/ha

	Maize	Sorghum	Wheat	Beans	Peas
1973			210		450
1974	980	840	260	560	320
1975	320	230	270	210	280
1976	410	240	620	160	160
1977	380	410	730	180	170
Mean	530	480	340	240	270

Note Figures are rounded to the nearest 10kg/ha.

(Source: Thaba Bosiu Project General Evaluation Surveys, 1973 - 1977)

Table 4.10 Phuthiatsana Irrigation Project area: yields of maize, sorghum and beans, crop year 1975/76 in kg/ha

	Maize	Sorghum	Beans
Lowlands	530	560	250
Foothills	780	530	200
Project area	600	780	220

Note: Figures are rounded to the nearest 10kg/ha.

(Source: Phuthiatsana Irrigation Project, 1977b, 20)

Table 4.11 Khomokhoana Project area: yields of maize, sorghum wheat and beans, crop years 1974/75 - 1975/76

in kg/ha

	Maize	Sorghum	Wheat	Beans
1974/75				
Lowlands	500	600	520	350
Foothills	670	410	-	180
Project area	560	520	520	290
1975/76				
Lowlands	220	150	320	100
Foothills	220	460	-	100
Project area	220	270	320	100

Note: 1. Poka (1977, 13) cites abnormally high rainfall as the principal cause of low yields in the 1975/76 season.

2. Figures are rounded to the nearest 10kg/ha

(Source: Poka, 1977, 14)

Table 4.12 Senqu project area: yields of maize, sorghum and beans, crop years 1974/75 - 1975/76

in kg/ha

	Maize	Sorghum	Beans
1974/75	760	380	NA
1975/76	810	680	300

Note: 1. These figures are derived from plant and cob counts on sample plots in the five Senqu Project 'core areas'.

2. NA = not available

3. Figures are rounded to the nearest 10kg/ha.

(Source: Senqu River Agricultural Extension Project, 1976b, 2)

The Khomokhoana Project area includes probably the most productive parts of the northern lowlands - which, as was suggested in Chapter one, offer the greatest agricultural potential in Lesotho. Over the project area as a whole, however, yields in a normal year (1975/76 having suffered from excess rainfall) do

not diverge greatly from those in the Thaba Bosiu Project area, which probably best represents overall lowland and foothill conditions. Yields in the Phuthiatsana project area, which lies between the two projects just mentioned, are of a similar order of magnitude. The yields reported from the Senqu Project area in the southern lowlands and foothills are surprisingly high in view of the unpromising physical conditions there. The reasons for this are not clear. The Senqu report states that

> "This yield estimate does not take into account the 10 - 15% crop failure, allowances for crop harvest losses and contour banks. A truer yield estimate may therefore be lower than the present estimate."
> (Senqu River Agricultural Extension Project, 1976, 2)

Yields 20 per cent lower than those tabulated would still seem high, however. A longer run of data from more than one source would be needed to suggest whether the survey method or conditions in the years shown were responsible for this.[1]

In the light of the discussions of physical and economic environment already presented (Chapters one and two), it would clearly be unwise to cite simple unwillingness of the Basotho to work harder at their farming as the key explanation of the low productivity and deteriorating prospects of Sesotho farming. It is important to consider yield data in relation to the net value of agricultural production. Gross margins for the principal subsistence and cash crops have been calculated for a number of recent seasons in the areas of the various agricultural development projects. The gross margin is determined by subtracting the average total cost per unit area of producing a given crop from the monetary value of the mean yield per unit area.

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[1] The 1970 agricultural census suggests a maize yield of 440 kg/ha in Mohale's Hoek district, for instance.

Table 4.13 Thaba Bosiu Project area: gross margins for the principal crops, 1973 - 1977 in rand/ha

	Maize	Sorghum	Wheat	Beans	Peas
1973			6.73		53.45
1974	20.57	26.39	16.10	59.62	43.79
1975	12.12	6.37	18.58	64.95	36.95
1976	12.45	5.58	27.05	14.41	27.36
1977	10.80	9.79	-12.74	17.44	-6.29
Mean	14.13	14.15	14.37	38.85	35.92

(Source: Thaba Bosiu Project General Evaluation Surveys, 1973 - 1977)

Table 4.14 Phuthiatsana Irrigation Project area: gross margins for maize, sorghum and beans, crop year 1975/76 in rand/ha

Maize	Sorghum	Beans
28.12	31.43	49.05

(Source: Phuthiatsana Irrigation Project, 1977b,18)

Table 4.15 Khomokhoana Project area: gross margins for maize, sorghum, wheat and beans, crop years 1974/75 - 1975/76 in rand/ha

	Maize	Sorghum	Wheat	Beans
1974/75	1.86	7.49	-4.65	23.33
1975/76	-19.88	-9.75	13.87	-21.30

Note: See Note 1, Table 4.11

(Source: Poka, 1977, 19)

Table 4.16 Senqu Project area: gross margins for the principal crops, crop year 1974/75 in rand/ha

Maize	Sorghum	Wheat	Beans	Peas
17.69	12.75	6.89	122.93	6.25

(Source: Senqu River Agricultural Extension Project, 1976a, 22)

The substantial variation in the calculations of the gross margin for a given crop - from season to season and also within the same season from area to area - represent not only the geographical differences in agricultural potential but the difficulty of calculating such a monetary parameter in Lesotho conditions.

> "In principle the opportunity cost of resources employed should be used rather than simple market values. With seed, fertiliser and insecticide, market prices are good estimates of opportunity costs. This is also true of work with tractors since they seem generally fully occupied at the critical periods. With animal draft operations, however, particularly when the farmer's son's animals are used, it is not possible to determine whether the resources would otherwise have been fully employed... labour costs have been excluded because of the lack of accurate data on labour use and because of the difficulty of assessing labour costs which vary widely according to age, sex, etc."
> (Khomokhoana Rural Development Project, 1976a, 18)

These explanatory comments on the calculation of one set of gross margins in the Khomokhoana Project area indicate the problems involved and are largely applicable to the other calculations represented in the tables above. It would appear that all these calculations employ wholesale market prices in determining the value of the crop.

> "It has however to be taken into consideration that a considerable proportion of the sorghum and maize products are used for home consumption. A more realistic value for calculating the farmers' actual return from these crops is therefore the retail market price."
> (Phuthiatsana Irrigation Project, 1977b, 21)

Substitution of the retail market price would increase the gross margin somewhat for these subsistence crops.

The principal inadequacy of these gross margin statistics, however, is that referred to by the Khomokhoana Project document. While all the gross margin calculations quoted take into account the cost of implements and traction - whether hired or drawn from

household resources - and the cost of all hired labour, none incorporates the cost of household labour because of the difficulty of putting a value to this factor. But it can clearly be argued that the opportunity cost of labour by that population group whose contribution is most necessary for prosperous farming - the able-bodied men - is much higher than the gross margins for a season's crop production as shown in these tables. For it approximately equals the sum which may be earned in that length of time on the South African mines - a source of employment generally open to all such able-bodied men who desire it. A miner with an average land-holding of two hectares may expect to remit or bring home several times the gross margin he might realise even if he planted all his land to beans and had a successful season. Although the gross margins tabulated above vary considerably from crop to crop, from season to season and from place to place, they are all of an order of magnitude which encourages a minimalist attitude to innovation, risk-taking and the investment of time or effort in Sesotho farming.

The contribution of the Basotho as <u>farmers</u> to the production of food in the fields is therefore not great; most land-holders prefer to perform the bare minimum tasks necessary to enable them to gather some crop from their fields at the end of the season. It is not easy to define an 'average' household in terms of labour expended on agriculture or the mode of working. But it is clear that the Basotho do not strenuously exert themselves in their farming, however tedious certain tasks such as weeding may be. It may tentatively be suggested, for instance, that to plough, plant, weed, harvest and thresh an

'average' field of maize of 0.5 ha., yielding an 'average' 250 kg. , might occupy 45 man-days.

While a significant change has occurred since the nineteenth century in the demographic circumstances of Sesotho farming - and in such physical parameters as the fertility of the soil - there appears to have been no such transformation in technical attitudes to crop production. It is argued that such a transformation to a more intensive system of farming has been precluded by the economic appraisals land-holders have been able to make: the conditions in which such assessments of marginal investment of money or labour are made were discussed in Chapter two, and the physical background was outlined in Chapter one. Basotho have failed to become more dedicated farmers and have instead perpetuated a more exploitative system of crop production as they were absorbed into the service of the metropolitan economy. Their appraisal of their economic opportunities has not been carried out in ecological ignorance: they are well aware of the crop-raising potential of their country and, as will now be shown, they continue to deploy a wide array of environmental knowledge in their production relationships with the land.

Agricultural and environmental knowledge

Soils for farming Sesotho soil classifications have never been investigated in detail [1], and it is not possible to treat the subject at length here. The system of distinguishing and describing soil types is not sophisticated, nor was it found

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1 The most useful comments provided to date are those of Sheddick (1954, 44) and Mohapi (1956, 22-23).

to be as unanimous as Sheddick (1954, 44) suggests. As was noted earlier, the change from a shifting pattern of cultivation to one of annual farming on the same fields removes an important dimension for the exercise of knowledge about soil types. It is true that the modern land-holder may have two or three fields with differing soils; but consideration is more often given to questions of microclimate (heavier frost damage being caused by temperature inversion in low-lying places) and of bird damage (sorghum is grown away from rivers whenever possible, as this is where birds are most numerous). Only if two or more fields are similar with regard to these parameters is soil type likely to affect the choice of crop.

Descriptions of soils were recorded at several points in the questionnaire survey on technical methods, administered in the Thaba Bosiu Project area (Appendix II, Q's. 9, 10, 13, 18, 26, 34, 42, 51, 55). These descriptions were recorded verbatim and are all presented in Table 4.17. They have been grouped into the four principal soil types; other descriptions (mostly relating to colour), and types of only marginal agricultural value. It is clear that this table cannot be exhaustive, as a Mosotho describing soil may not only mention one or more of the numerous colours exhibited but also include reference to other qualities of the soil, such as its location or fertility. There is therefore no clearly limited set of soil descriptions. The table also shows that the principal criterion in Sesotho soil classification is texture, so that a soil may simply be described as <u>selokoe</u> or <u>lehlohlojane.</u> Many people also refer to the colour, however, and numerous others refer only to the colour, simply describing the soil as 'black' or 'red'. The

Table 4.17 Sesotho soil classification as recorded in The Thabă Bosiu Project area

PRINCIPAL GROUPS

	Lehlabathe (sandy)	Selokoe (loam)	Letsopa (clay)	Lehlohlojane (stony/ unweathered)
Further description: colour				
(black)	lehlabathe le letso	selokoe se setso	letsopa le letso	lehlohlojane le letso
(red)	lehlabathe le lefubelu	selokoe se sefubelu		
(grey)	lehlabathe le leputsoa	selokoe se seputsoa	letsopa le leputsoa	lehlohlojane le leputsoa
(yellow)	lehlabathe le lesehla	selokoe se sesehla		lehlohlojane le lesehla
(dark brown)	lehlabathe le lesootho	selokoe se sesootho		
(light brown)	lehlabathe le lethokoa	selokoe se sethokoa		
Further description: other				
(river)	lehlabathe la noka			

OTHER DESCRIPTIONS

Colour

(black soil)	mobu o motso
(red soil)	mobu o mofubelu
(brownish red soil)	mobu o mofubelu bo bosootho
(dark red soil)	mobu o mofubelu bo lefifi
(grey soil)	mobu o moputsoa
(yellow soil)	mobu o mosehla
(yellowish grey soil)	mobu o moputsoa bo bosehla
(dark brown soil)	mobu o mosootho
(light brown soil)	mobu o mothokoa

Other qualities

(strong, healthy soil)	mobu o mokoena
(firm soil)	mobu o mahlahlaba
(black river soil)	mobu o motso oa noka

MARGINAL TYPES

(stony, gravelly)	thumane
(red, stony, gravelly)	thumane e khubelu
(unweathered, stony)	mokurutloane
(reddish earth)	khokhotsi
(bare, hard, infertile)	sebataolo

latter more superficial descriptions are most often given by women, although many men also use them. 'Superficial' distinction of soil types according to colour may often be meaningful, however. Carroll (1975, 2), writes that

> "Colour is the most obvious characteristic of soils. Of itself, it is of minor importance, but it often serves as an indicator of other soil conditions that are extremely important... For example, black or dark brown soils on well-drained sites of the valley lowlands are associated with adequate supplies of basic cations and, more frequently than not, with nitrate supplies higher than found in the nearby lighter-coloured soils."

Bevan and McKee (1975, 17) also base certain comments on soil colour:

> "Between 1600m and 1700 m there are ridges of very important red soils. Their origins are still doubted but their value is not."

A crude grading of soils' agricultural productivity may be identified according to both texture and colour classifications. Basotho generally recognise selokoe as the best soil for farming, followed by the sandy lehlabathe [1]. Letsopa, clay, may produce a fair crop in certain circumstances, but lehlohlojane is usually considered infertile. With regard to colour, black and dark brown soils are considered the best, probably followed by red ones. Selokoe se setšo or selokoe se sesootho would thus be felt by many to be the best soil, with selokoe se sefubelu less good but also desirable. Basotho are

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1 The 1977 technical methods survey was also administered to a small group of 40 respondents from several villages in the area of the Khomokhoana Rural Development Project in the northern lowlands. Probably because of the configuration of local soils, 60 per cent of these respondents said that the best soil on their lands was mobu o mofubelu, while a further 10 per cent named lehlabathe le lefubelu.

well aware, however, that some of these loams waterlog easily (cf. Carroll, 1975, 3); nor is their moisture retention adequate in a drought. Informants at Ha Khoeli said of the sandy lehlabathe soils in their area that they produced good yields in years of adequate rainfall.

No clear preference can be identified which associates particular crops with particular soil types: as has been noted, such a preference can rarely be exercised. Mohapi writes:

> "Basotho ba jala mabele, ntšoe, mahapu, mehope le linaoa selokoeng se sesootho. Selokoeng se setšo kapa se seputsoa ba jala koro, mekopu, lierekise le lensise. Lehlabatheng ba jala poone le litapole. Leha ho le joalo ha ho hlile ha ho melao e tlamang hore limela tse itseng li ka jaloa mobung o itseng feela. Khethollo ea ho jala e mpa e e-ba teng feela ha eba masimo a motho a le mefuteng e fapaneng ea mobu." (1) (1956, 23)

It seems unlikely that many people differentiate so clearly between dark brown and black loams. As sorghum is a hardier crop it would also seem more probable that it should be planted on the poorer soils rather than on the best dark loams as Mohapi suggests; this was certainly observed to be true at Ha Khoeli, although here these soils were close to rivers and sorghum would therefore be prone to bird damage.

In the questionnaire administered over the Thaba Bosiu Project area, respondents were asked what soil they would use

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> "Basotho plant sorghum, sweet reed, melons, gourds and beans in dark brown loams (selokoe). In black or grey loams they plant wheat, pumpkins, peas and lentils. In sandy soils (lehlabathe) they plant maize and potatoes. However, there are certainly no rules requiring particular crops only to be grown in certain soils. And there can only be discrimination in planting when a person's fields have different soil types."

for growing various crops (Appendix II,Q's. 18, 26, 34, 42, 51). The data obtained were unsatisfactory and inconclusive, however, as it was not consistently made clear to respondents that the question was general and hypothetical, rather than referring to the specific soils they had available on their own lands. This material is not, therefore, discussed in detail here, although it is tabulated in Appendix II (Tables 3 - 6) to indicate the apparent trend: selokoe (loam), and particularly mobu o motšo (black soil) are preferred for maize and sorghum, whereas lehlabathe (sandy soil) is thought adequate for wheat and black, red or sandy soils seem to be prominent choices for beans. The most satisfactory enumeration on soil preferences was in Q.55, where respondents were asked which was the best soil for a vegetable garden. 28.6 per cent named black soil, 18.5 per cent lehlabathe, 17.3 per cent red soil and 16.7 per cent selokoe.

Comprehensive soil survey work is currently being carried out in Lesotho by the Ministry of Agriculture. The classification evolved for the purpose is based upon the U.S. Seventh Approximation. A number of soil series have been defined according to the usual technical criteria; each of these is subdivided into slope classes and each of the latter is also classified into one of eight land capability categories (see Chapter one). As the classification of any soil depends on the exact combination of such parameters as depth of the various horizons, acidity and drainage characteristics, it is not easy to offer a meaningful cross-reference with Sesotho soil types. At Ha Khoeli six sites with differing 'western' soil types were identified with the aid of a Ministry map, and the actual series and class were then confirmed in the field with two soil scientists.

These six sites were later visited with a small group of senior village men, who were unanimous in their opinion of each type of soil:

Table 4.18 Six Ha Khoeli soil types

Site no.	Lesotho soil series and class	Villagers' description (see Table 4.17)
1	Machache, MaC	mobu o mofubelu
2	Fusi, FuA	selokoe se setšo
3	Mats'aba, Mb	mobu o mosootho, thumane
4	Ralebese, Ra	mokurutloane
5	Thabana, TaB	selokoe se setšo
6	Sofonia, SoB	selokoe se setšo

The Sesotho classification of agricultural soils is based upon much simpler criteria than the western one recently devised for the country, and these criteria do not constitute a uniform or consistently applied system. Although the detailed western classification is valuable in those few cases where a detailed plan for the reallocation and optimal exploitation of a village's agricultural resources can be drawn up and implemented, neither system is of great relevance to the decision-making of the ordinary holder of two or three fields (for reasons suggested earlier). Because of the greater abundance of land resources in the era when a choice of soil could be made, the present imprecise classification was probably adequate, although it may have been supplemented by a more detailed system of preferences of the sort described by Mohapi. The Basotho have not needed to evolve a more intricate structure of soil evaluation in recent times; rather, their existing knowledge appears to be falling into disuse.

Soils for plastering The 'marginal types' noted in Table 4.6 are probably best described as types of earth or ground rather than of soil. Two of these, together with a number of others, are used by women for plastering walls. This domestic chore is carried out several times a year by conscientious housewives, the earth being mixed with water and dung for the purpose. Women may travel several miles with metal basins to obtain soil of the desired colour, and the holes where it is excavated (likhatampi) may often be seen in the countryside. Some simply describe the soil they use as 'lehlabathe' or 'selokoe',perhaps qualifying it with a colour adjective. A number of specialised plastering categories are believed to be used, however, although the subject was not directly investigated. These include thumane (yellow or red), khokhotsi (red), lekoeche (dark maroon or brown) and chaba, lekoete and mahlalele (colours unknown: the last is perhaps only a cosmetic). Deeply rotted sandstone is also used to give an almost white plaster. Although information on these domestic earths is scanty, it is clear that this is a realm of environmental exploitation in which women remain expert and which warrants further study.

Crop types The Basotho recognise many varieties of their principal crops, an incomplete summary of which will now be presented. Research to date on Sesotho crop classifications, as on other aspects of vernacular agriculture, has been inadequate, and the lists of varieties below cannot therefore be exhaustive or precise. It would seem, however, that the Basotho themselves are not unanimous in their naming of different varieties or their definition of these varieties' characteristics.

Moreover, although certain broad favourites may be identified, individual preferences naturally vary according to local conditions and personal tastes. But probably the most important factor determining the actual variety planted in a given field - when seed from a previous harvest is not used - is the range of seed available at planting time, which may or may not include the type the farmer wants. Although the array of Sesotho knowledge about crop types is wide, it will be argued that its relevance to farming practice is limited by this fact.

Crop varieties will be listed here for the four principal crops: maize, sorghum, wheat and beans. Most of the types named were mentioned by respondents to the technical methods questionnaire administered in the Thaba Bosiu Project area [1]. Whenever possible, comments are provided in the crop lists about the qualities of the varieties, how they relate to each other and where types may overlap. Some of these comments are drawn from Mohapi (1956); others derive from field experience, and many were provided by agricultural officers and by students at the National University of Lesotho [2]. Further information about certain modern varieties is presented in Bevan and McKee (1975, 49-83). Some types listed below are clearly descriptions rather than actual names of varieties; but with the scanty information available to date it is judged most useful to present the majority of these exactly as recorded in the field. Some

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1 Appendix II, Q's. 19, 20, 27, 28, 35, 36, 43, 44.

2 In particular the assistance of Mr N. Diaho and Miss L.Letsie is gratefully acknowledged

of these descriptions are particularly relevant as an index of the precision with which Basotho differentiate crop types.

In the case of maize, a basic distinction may be made between dent and flint types. Those varieties with established Sesotho names may also be distinguished from more recent arrivals, some of which are single strain varieties and many of which are hybrids. Common reference is also made to the colour of the maize: white is the most popular, but red or yellow types are also much used; the distinction between the latter colours is blurred, a 'red' maize often being more or less yellow. Some hybrid varieties are simply known by the numbers allocated to them by South African seed distributors, even numbers referring to yellow or red types and odd numbers to white ones.

Table 4.19 Maize varieties

Name	Comments
Lepolanka (or lehono)	Appears to be a broad term for dent varieties. Said to be 'good and white', easy to grind. Not frost resistant.
Lepolanka le lesehla	Yellow lepolanka
Lepolanka le lesoeu	White lepolanka
Lepolanka le letenya	Thick, stout lepolanka (probably referring to cobs)
Lepolanka le liphara	Broad lepolanka. Apparently tautologous as a description of dent maize.
Lepolanka la 'Muso	Government lepolanka
Silver King (Selefa King)	White dent with red cobs. Very nutritious.
E liqo tse khubelu	With red cobs, ie. Silver King
Lepolanka la liqo tse khubelu	Lepolanka with red cobs, ie. Silver King
Lepolanka la liqo tse tšoeu	Lepolanka with white cobs

Table 4.19 Maize varieties (cont.)

Name	Comments
E tšoeu e liphara	Broad, white
E tšehla	Yellow. Not clearly distinguished from red, but some say it grows quicker than red and resists drought.
E khubelu	Red. Sometimes described as 'ea lipere' (for horses).
Borotho	'Bread'. This word is a common description of a white variety (not only of maize). Soft and easy to eat, especially good when roasted. Broad leaves. Sensitive to frost.
Lehalesbere	Hard flint, difficult to grind. Possibly a general term for flint maize. Mohapi says of lehalesbere and lehakoana (see below) that they were found by the Basotho to the north, although it is also said that they were brought by Europeans.
Lehalesbere le lefubelu	Red lehalesbere
Lehakoana	Flint, much like lehalesbere
Montšunyane	Like lehakoana, but leaves darker or speckled.
Lekutumane (or 'Mameutloana)	White, shiny, broad. As hard as lehakoana. Used for lipabi (ground, roasted maize). Ripens quickly.
Matjolobane	An old variety with red cobs and very small, hard kernels. Grown high in the mountains; short growing season.
Lentikile	General name for any maize hard to grind? It is said that newly married girls are tested with this maize to see how well they can grind. Said to resemble matjolobane. Also called kula-ofole?
Peketsane	Very old variety. Short stalks. Broad, reddish leaves.
Lekutukutu	Another name for lehalesbere? Said to resemble lentikile.
'Mammusa (or mankhubetete)	Red. Thick cob and stumpy leaves. Very soft, makes good bread.
'Mamenoana	Flint with sharp pointed kernels.
Anveld	White dent, single strain.
American white flint	Single strain
Natal 8 row	Yellow/red flint, single strain. 8 rows on a cob.
Sahara	Yellow dent, single strain.
PL 10	Dent. Yields well. 12-22 rows on a cob.

Table 4.19 Maize varieties (cont.)

Name	Comments
SA 4	Yellow/red
PPK 64 (often just called PPK)	Hybrid dent (Potschefstroom Pearl crossed with Kalahari). Drought resistant; one of the highest yielders.
64F	
SA 5	White hybrid.
SA 9	White hybrid
SA 11	White hybrid
Pioneer 77	White hybrid dent (Pioneer Seed Co.)
Sesebeke	Six weeks (between flowering and ripening)
Alper	Dent
Kalahari	Kalahari Early Pearl. Dent
Elpent	
Lecusa	Variety supplied by Lesotho Credit Union Scheme for Agriculture.
Roistoromo	Afrikaans for 'red cob'.

It can be seen that some Basotho simply describe certain qualities of a maize variety rather than name it precisely, and that some of the categories tabulated may subsume others. These considerations should be borne in mind in examining Table 4.20 which shows the types respondent to the survey most commonly said they would plant (Appendix II, Q. 19).

Table 4.20 Varieties of maize most commonly preferred (central lowlands)

Percentages refer to the sample population of 337 land-holders in the Thaba Bosiu Project area

	%
Lepolanka	35.0
Silver King	21.7
PPK 64	10.4
E khubelu (red)	5.3
Lehalesbere	5.0

It is interesting also to note the responses of 40 farmers in the northern lowlands of Lesotho (Leribe district), where agriculture is generally acknowledged to be more 'progressive' than elsewhere:

Table 4.21 Varieties of maize most commonly preferred (northern lowlands)

Percentages refer to the sample population of 40 members of farmers' associations in the Khomokhoana Project area

	%
PPK 64	35.0
SA 11	20.0
Lepolanka	15.0
PL 10	12.5

Among these 'progressive farmers' there is a marked preference for recently imported hybrids. This sample was intentionally biased, however, to represent the most successful Sesotho farming in the country's most fertile region; the respondents in the Thaba Bosiu Project area must be considered more representative of the nation as a whole. In the latter case also, significant proportions of the population refer to new varieties, but the most commonly stated preference is simply for 'a dent maize' (lepolanka). It is difficult in mass enumerations of this sort to record useful explanations as to why respondents favour a certain variety over others, although an effort was made to do this in reverse by asking why each of the other types named would not be planted. The latter question did reveal one significant factor: by far the most common explanation for not using any given variety was that the seed was not available. 30.9 per cent of the 'other types' named were said not to be used for this reason. Other explanations were more specifically critical of the variety in question: 9.4 per cent of the

'other types' were rejected because they "lacked strength", gave poor yields or grew badly; 6.8 per cent because of poor germination; 6.2 per cent because respondents simply "were not used" to them, and a further 5.3 per cent because they were disliked for no stated reason. The remaining 41.4 per cent of the 'other varieties' named were rejected for reasons relating more specifically to their own defects or to the advantages of the favourite type.

It should be noted also that for many land-holders the choice of variety to be planted is automatic and requires no decision, as seed retained from a previous harvest is used [1]. The fact that a majority of fields are planted with seed retained from previous harvests, even though such harvests are rarely adequate for a year's subsistence, is an important index not only of the degree to which technical knowledge of maize varieties is exercised in farming strategy, but also of the relative contribution of the fields to household economies. Given that most households planting with last year's seed have not fed themselves all year from that previous harvest, it is clear that the shortfall in food, and of course in other components of subsistence and comfort, is made up from other sources. Basotho's dependence on their crops is not absolute: many are not forced to eat every last grain they grow, but can set some aside to provide for the following year's limited subsistence contribution from the fields.

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1 76.9 per cent of the fields cultivated at Ha Khoeli in summer 1975 -6 were planted with seed from a previous harvest; this proportion was 83.8 per cent in 1976.7.

Returning to the question of vernacular classification of crop varieties, it may be concluded in the case of maize that, because seed is kept back from year to year and because the chance of a given variety being unavailable is substantial, the scope for the exercise of such technical expertise is limited. Although many people give vague descriptions such as 'dent maize' or 'yellow maize', the array of knowledge about different varieties and their characteristics remains considerable. It would appear to be a declining branch of vernacular science, however.

Many of these comments apply also to the Sesotho classifications of other crops, which will now briefly be described.

Table 4.22 Sorghum varieties

Name	Comments
Seqhobane	The favourite variety. Makes good, sweet, very strong beer; also good for other food. Makes very white flour, but hard to grind. Short, yellowish-white; heads compact, rain does not enter easily. Most frost-resistant type. Said to grow best in black selokoe soil.
Seqhobane se sesoeu	White seqhobane - a rather tautologous description
A makhutšoanyane	Short
Seqhobane se sefubelu	Red seqhobane
Letsoejane	Short Sesotho variety. White/red, good to eat.
Mothanyane	Sorghum of ancient times: similar to letsoejane, with head resembling that of kobo-kholo (see below). Thin white and red leaves; said to like selokoe se sesootho soil. Not so good to eat.
'Mamothanyane	
Mothamane	More usually the name of a light sorghum beer.
Borotho	White.
A masoeu	White. White sorghum is said not to be so hard, but not to be as frost-resistant or as tasty as seqhobane.

Table 4.22 Sorghum varieties (Cont.)

Name	Comments
A masoeu a makhutšoanyane	Short white, ie. probably seqhobane
Roma White	White single strain. High yielder
Tennant White	Recent strain named after a colonial agricultural officer. Developed from Roma White
David Makhanya	Variety named after an agricultural extension worker who promoted it.
Maqhanya	Description of soft, unripe sorghum (like senkhoane?)
A masehla	Yellow
A malelele	Tall
A mafubelu	Red
A sa ipopeng	Sorghum with a less compact head.
Lehasana	With a loose head (from ho hasa, to scatter?)
Khobo-kholo	Short, reddish-white, with long thin heads. Light brown grains making a light brown flour. Grains have a black/brown covering over them, hence the name (meaning 'big blanket')
A manala	Red and white
Motanyatsane	Sorghum resembling the sweet reed ntsoe (traditionally grown with sorghum). Soft, not high yielding
Leopolanka	Like borotho, this name probably borrowed from maize terminology and rather vaguely applied.
Senkhoane	Green, unripe sorghum.

As with maize, the descriptions offered of sorghum are not always precise. Principally because sorghum growing has not been the object of such determined modernisation efforts by the administration, the range of varieties named is smaller than that of maize. Moreover, there is a clear preference for a few types:

Table 4.23 Varieties of sorghum most commonly preferred (central lowlands)

Percentages refer to the sample population in the Thaba Bosiu Project area.

	%
Seqhobane	31.5
White	19.9
Seqhobane se sesoeu	11.9
Red	11.9
Short white	3.6

Although some respondents prefer red sorghum, a large majority like white types, mostly of the established seqhobane variety (although some of those simply naming 'white' varieties may be referring to newer strains listed in Table 4.22). It is interesting to note that in the Leribe district there appears to be a much stronger preference for red varieties:

Table 4.24 Varieties of sorghum most commonly preferred (Northern lowlands)

Percentages refer to the sample population in the Khomokhoana Project area.

	%
Red	35.0
Red and white	25.0
Seqhobane	15.0
White	10.0

This preference may be due to the greater familiarity of the 'progressive' farmers in this sample with modern sorghum cultivars. Bevan and McKee (1975,69) write that among these newer strains, red varieties are less prone to bird attack than white ones.

Wheat is a less common crop than maize or sorghum in the lowlands and foothills of Lesotho; and although many names were encountered, knowledge of varieties is more vague than for the

staples discussed above. A majority of the types listed were named by less than five respondents, suggesting that much of this knowledge about wheat types is based on hearsay rather than practical experience. It was also harder to obtain descriptive explanations of the terms collected, so that Table 4.25 provides rather less information than those already presented.

Table 4.25 Wheat varieties

Name	Comments
Telu ntšo	'Black beard' - a well known variety. Long spikes. Easy to grind.
E ntšo	Black
E tšoeu	White
Borotho	ie. white
E tšehla	Yellow
E khubelu	Red (possibly Red Victory, a winter wheat)
E sootho	Dark brown
Lechokotoane	
Soebara	
Motanyatsane	Variety popular in the mountains (summer wheat). Makes good bread.
Mantšonyane	Also popular in the mountains. Tall with long spikes. Dark, grains rather like mathethebale (see below). Sometimes called 'ea Sesotho' (Sesotho wheat).
Ea Sesotho	Sesotho wheat
Ea maloti	Mountain wheat
Sehloane	
Manonobeke	
Makatapole	
Mankolo (Mankaloe?)	Popular in southern lowlands. Tall with long spikes. Makes dark flour.
Mapelii	
Makhasinyane	
Mathethebala (Mathethebale)	Short, thin stalks. Small lined grains, Late maturing. As a description of this characteristic the name may refer to any crop.
Bolane	
E monchabora	'Bearded'.

Table 4.25 Wheat varieties (cont.)

Name	Comments
E nang le litjobo	'Bearded', ie. with a dangling front covering
E metsu, e meutloa	With spikes
E se nang litelu	'Beardless'
E seng metsu	Without spikes
E matlharatlhara	
Talebere	
Lepolanka le letšo	Black 'lepolanka'
Bolo koro	Makes good bread
3 months	Presumably refers to the growing period.
Bethany	Hybrid
Hoffman	
Spitzkop	Hybrid. Resembles a cobra's head.
Scheepers (69)	A well known hybrid (winter wheat)
Kenya Sokkies	Said to have been smuggled from Kenya to South Africa inside someone's socks. Called 'Malinonyana' in Sesotho, as birds like it. A summer variety recommended for the lowlands and foothills.
Frisco	Hybrid
Belita	Hybrid
Elphei	
Algeria	
Bella	Hybrid spring wheat
Manthoba	
Malethoba	
Mankhase	

The lower level of popular familiarity with wheat types is confirmed by the responses to the question, "What type of wheat seed would be planted?" (Appendix II, Q.35) - the most common of which was "Don't know".

Table 4.26 Varieties of wheat most commonly preferred (central lowlands)

Percentages refer to the sample population in the Thaba Bosiu Project area

	%
Don't know	24.7
White	23.2
Mapelii	6.5
Scheepers	6.3
E monchabora	5.4

The most frequent preference for "white wheat" is not precise; nor is that for 'bearded wheat' (e monchabora). The 'progressive farmers' in the Leribe district had a strong preference for one hybrid variety, but many of them could not name their favourite wheat type either:

Table 4.27 Varieties of wheat most commonly preferred (northern lowlands)

Percentages refer to the sample population in the Khomokhoana Project area

	%
Scheepers	42.5
Don't know	32.5
Kenya Sokkies	10.0
Telu ntšo	10.0

The mountains are commonly known elsewhere in the country as the area of wheat growing, and wheat is often perceived as the crop of the mountains. This would be the most productive area for further research to fill out the scanty information on wheat types presented here.

A similarly vague situation prevails with regard to bean types. The descriptions of bean types presented below have several interesting features, but again the descriptive information is regrettably incomplete:

Table 4.28 Bean varieties

Name	Comments
Tse tšoeu	White
Borotho	Bread, ie. white
Canadian White	
Tse nala	White and red
Tse pinki	Pink
Pink Wacher	Short growing period. Named after a colonial agricultural officer.
Tse tšehla	Yellow
Tse ntšo	Black
Tse khoali	Black with white spots
Tse phatšoa	White and black
Tse khubelu	Red
Tse thokoa	Light brown
Tse sootho	Dark brown. Sesotho beans? Mainly for animals?
Tse Sesotho	Sesotho beans (cowpeas?). Mainly for animal fodder.
Moqaqapane	Very old variety. Black, ripen fast.
Mahe a likoekoe	'Quails' eggs'. Traditional type. Speckled, ripen fast.
Kholokhoana	Round: similar to beads worn by girl initiates, hence the name
Khololikane	
Moqhala-poto	Yellowish. Shed outer skin and 'double' size, hence name.
Moteka	
Lehalesbere (Mofoka?)	Hard to cook
Lehakoana	
Lepolanka	
Mathethebale	Late maturing
Libonkisi	Afrikaans term for all kinds of beans (boontjies)
Small White haricot	High yielding variety recommended by authorities.
Butter beans	White, broad. Rare in Lesotho: poor yield.
Cream beans	
Natal	Natal Yellow variety. Also Natal speckled?
White sugar beans	Sweet, small
Speckled sugar beans	
Soya beans	

Many bean varieties are simply named by their colour - the wealth of patterned colour adjectives deriving from descriptions of cattle (eg. -phatšoa, -khoali), being adopted for this purpose - and it is doubtful how precisely the different colours are distinguished in terms of quality. A number of terms encountered in earlier lists - notably names for maize types, eg. lehakoana, lepolanka - recur in this table of bean varieties. It is unclear whether such names refer to certain qualities a bean crop and a maize crop may have in common, or whether they are terms recalled from hearsay by respondents ignorant about varieties of any sort of crop: the latter is perhaps more likely. Such problems must be seen in the context of the respondents' stated preferences, however, which Table 4.29 shows to be overwhelmingly for white beans:

Table 4.29 Varieties of beans most commonly preferred (central lowlands)

Percentages refer to the sample population in the Thaba Bosiu Project area

	%
White	61.6
Borotho (ie.white)	25.6
Mahe a likoekøe	1.8
Black with white spots	1.5
Small white haricot	1.5

This preference is also shown by the small sample in the northern lowlands.

Table 4.30 Varieties of beans most commonly preferred (northern lowlands)

Percentages refer to the sample population in the Khomokhoana Project area

	%
Borotho (ie. white)	27.5
White	25.0
Black with white spots	22.5
Small white haricot	10.0

Much of this almost unanimous preference for 'white beans' must be attributed to the work of the agricultural authorities, who have promoted the adoption of beans as a cash crop and have been able to control the supply of seeds and support the development of marketing facilities. In responding to the commercial opportunities created for them, Basotho have been made aware of the quality required by stores and government purchasing agents. They have been very ready to follow extension agents' advice and reject the older, many-coloured and exotically named varieties for the commercially saleable white beans. Although it might be expected that Sesotho knowledge of bean types will widen and become more precise as this cash crop grows in popularity, this may not necessarily be so. The government largely controls the supply of bean seed and the marketing of produce, and farmers are aware that they should grow what the authorities recommend if they are to sell the crop back to them. The need for the land-holder to become expert about bean varieties is limited by this factor.

In the cultivation of beans, the Mosotho land-holder is faced with the choice of planting a 'Sesotho' variety, probably for animal consumption, or a more modern variety, probably for sale. In the former case he is unlikely to be particular about the type he plants: if - as most Basotho now prefer - he follows the latter course of action, the choice will probably be made for him by the agency supplying the seed. As has been pointed out, most Basotho planting the other three crops discussed use seed kept back from a previous harvest, so that over a run of years there may be no decision to make about which variety to choose. Of course, many land-holders do obtain seed from outside the

household each year, and in doing so employ knowledge about varieties of the kind sketched here. As has been shown, however, such choices are severely constrained by the actual availability of the particular varieties a farmer may favour. Although an impressive array of vernacular crop classification exists, and deserves a more intensive investigation than has been possible here, its relevance to the practice of Sesotho agriculture is limited. It is unlikely that the more thorough study of such classifications will reveal a hidden dimension of agricultural expertise.

Fertilisers The proportion of Basotho land-holders applying fertiliser to their fields is low. In the Ha Khoeli census it was reported that fertiliser was used on 4.1 per cent of the fields cultivated in summer 1975-6 and on 3.4 per cent in 1976-7 [1]. A number of types of fertiliser are available for purchase at government and commercial outlets: these include ammoniated supers, 2-3-0 and Saaifos, although the range, composition and concentration of the products on sale at government stores tends to vary from year to year. Basotho are well aware that fertiliser increases yields, just as they know that natural additives such as manure improve the soil's fertility. Manure is rarely applied to the fields, being used as fuel. Few land-holders have the ready cash with which to purchase fertiliser, and they, together with those capable of earning the money, may be reluctant to do so after appraising the prospects

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1 As with other indices of 'progressive farming', fertiliser use is significantly higher in the northern lowlands of Lesotho than in central and southern areas. A high proportion of farming households - 49 per cent in the foothills ('Area I') in 1976 has also been reported to buy fertiliser in the Phuthiatsana Irrigation Project area, which covers lowlands and foothills in parts of Berea and Leribe districts (Phuthiatsana Irrigation Project, 1977a,11)

of recouping the investment with a good crop: despite the application of fertiliser, yields may still be reduced by drought, frost, weeds or pests. It may often be a wiser decision to buy food than to buy fertiliser. These considerations apply equally to those contemplating the purchase of fertiliser on government credit. Probably the most widely applied form of fertiliser is household ash, which may be gathered into sacks and taken to the fields, to be dispensed through a planter.

Basotho's knowledge of chemical fertilisers is haphazard and vague. Very few farmers can state with certainty which type they would use for a certain crop, although many have heard the more common names and suggest these when asked such a question (see Appendix II, Q's. 22, 30, 38, 46, 53); and many more have seen these fertilisers and offer a description of appearance and texture. An example of the types of reply received is given in Appendix II, Table 7, showing what kinds of fertiliser people said they would use for maize. Although three quarters of the respondents offered an answer to this question, it must be concluded that only a small minority of these had a useful knowledge of the subject. When asked why a particular fertiliser would be used, most people thus simply said that it was strong and would increase the yield, that they were following advice or that they knew and liked that type; a consistent minority stated that it promoted moisture retention in the soil. Although fertiliser use is increasing in Lesotho (subject to the price of the commodity), useful knowledge about types of fertiliser and their uses is not yet current among rural people.

Pests and remedies Basotho are well aware of the many varieties of pest which attack their crops, and adopt several types of remedy to combat them, although their familiarity with chemical insecticides is even less than their knowledge of fertiliser types. In the questionnaire survey on farming methods (Appendix II, Q's. 24, 32, 40, 48) respondents were asked what diseases, insects and birds attacked maize, sorghum, wheat and beans. The ten most common replies for each crop are tabulated below; where a Sesotho term may refer to more than one variety recognised in English, it is shown in parentheses.

Table 4.31 Pests attacking maize

Figures indicate percentages of respondents mentioning each

Birds	%	Insects and worms	%	Animals	%
Crow, raven (lekhoaba)	6.2	Worms (seboko)	88.7	Rats	7.1
		Worms (seseli)	26.1	Mice	4.7
Bishop bird	3.6	Caterpillar (popane)	20.8	Porcupine	1.8
Guinea fowl	1.5	Beetle ('maleshoane)	6.5		

Table 4.32 Pests attacking sorghum

Figures indicate percentages of respondents mentioning each

Birds	%	Insects and worms	%	Diseases	%
Bishop bird	60.5	Worms (seboko)	35.6	Rust (phori)	2.4
Pigeon	42.7	Caterpillar (popane)	22.8		
Sparrow	24.0	Worms (seseli)	7.7		
Cape canary	13.9	Beetle ('maleshoane)	3.3		
Widow bird	12.2				

Table 4.33 Pests attacking wheat

Figures indicate percentages of respondents mentioning each

Birds	%	Insects and worms	%	Animals	%
Bishop bird	52.2	Worms (seboko)	3.0	Mice	4.5
Sparrow	24.6			Rats	3.3
Widow bird	20.2			Diseases	%
Pigeon	19.0			Rust (phori)	4.7
Cape canary	14.5				
(General)	3.9				

Table 4.34 Pests attacking beans

Figures indicate percentages of respondents mentioning each

Insects and worms	%	Diseases	%
Beetle ('maleshoane)	55.8	Rust (boroku)	2.1
Worms (seboko)	50.4		
Caterpillar (popane)	26.1		
Worms (seseli)	14.2		
Small locusts (tsienyane)	5.3		
Leholoanyane (?)	2.4		
(General)	1.8		
Grub (hoaba)	1.5		
White and black insects (likokonyana tse phatšoa)	0.6		

It can be seen from these tables that the most serious damage caused to maize is the work of worms, with rodents, certain large birds and the porcupine also causing significant losses. Birds are the principal scourge of sorghum and wheat, although insects and worms are also important in the former case and both crops may suffer from rust. Rust is also said to damage beans, but the principal pests identified here are insects and worms.

Asked how the problem of bird damage can be tackled (Appendix II, Q's. 25, 33, 41, 49), Basotho refer to two practices

already noted: scaring (ho tšosa) and treating the fields with medicine (ho upa). Since few land-holders now seem to maintain a constant vigil over their crops in the season of greatest bird damage, as is said to have been done in the past, birds are now scared only on chance encounter or by the scarecrows already described. The efficacy of such methods cannot be great. It is not clear how effective the use of moupello medicine is against birds: many Basotho appear to believe in it. The exact composition and application of moupello are also subjects for further investigation, although research is hindered by the reticence of those knowledgeable in such matters (these persons may be Sesotho doctors or ordinary farmers). Mohapi (1956, 41-42) describes one method used for protecting sorghum against birds (see also Sekese, 1907, 34-35). Certain types of bolila plant are gathered - bolila ba linoha (Oxalis corniculata [1]), bolila-khomo (Rumex woodii) and bolila ba thaba (Pelargonium myrrhifolium) - together with the hloenya plant (Dicoma anomala or Teedia lucida). These are mixed with a little sorghum damaged by birds, and roasted over a dung fire with chicks and eggs taken from a nest. The operation takes place at the side of the field. When the roasting is done the mixture is then smeared on a sorghum plant in the middle of the field, and on others at the corners. Mohapi writes that when a bird arrives to eat the doctored sorghum , it seems to see its young in the leaves of the plant, and when it tries to

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1 These Linnaean classifications are those recorded in Paroz's dictionary (1950) - an invaluable source for botanical reference deriving principally from the work of A. Dieterlen - and in Jacot Guillarmod, 1971,337-408. Sesotho botany is discussed below.

eat the grains its beak is made slippery by the bolila cooked in the medicine. Ashton records a similar prescription:

> "... the root of the plant bolilakhomo, burnt with the young of grain-eating birds... and mixed with uncooked butterfat. The mixture is then rubbed on rags or sticks and hung round the field." (1967, 128)

There are probably other kinds of moupello in use against birds, but the composition of these is not known. Whatever the exact ingredients or the actual efficacy [1] of the method, Basotho continue to exercise some knowledge and skill in this branch of agricultural medicine.

Villagers are also relatively unanimous in their opinion as to how insects and worms may be combated. But a significant proportion [2] cannot suggest any remedy in this case, whereas everyone knows how to deal with birds. While Sesotho botany and the naming of birds are matters of precision, there is some vagueness in describing those pests which eat their way inside the crop. Seboko appears to be the general name for such worms. Seseli refers more exactly to the cutworm, but the former term may often be used loosely to include seseli, grubs (hoaba) and caterpillars (popane). Chemical insecticides are as yet used only on a very limited scale; but, largely as a result of government agricultural extension messages, many Basotho know the name of one type, Thiodan. Large numbers of respondents thus named this insecticide as a remedy for worms, caterpillars, other

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1 It might be argued that the smoke of the medicine wafting over the field slightly flavours the crop and discourages birds.

2 32 per cent of a group of 295 who mentioned seseli and/or seboko as maize pests.

insects and even sometimes for rust, rats and mice. A greater number merely said that 'an insecticide' (moriana oa likokonyana [1]) could be used. Very few Basotho, however, take positive action to combat the worms and insects whose damage to their crops they acknowledge to be so great. A few people still say that they may use moupello against these pests. Reference may again be made to Mohapi (1956, 27-28) who describes the use of one medicine against seboko. A few worms are collected from the affected field, and cooked in a clay pot with roots of the plant seboka (Gerbera viridifolia or Schizocarpus gerrardii) and phate-ea-ngaka (hermannia depressa). It is said that while these worms are being cooked (preferably in a cave), those remaining in the field rush out to a bare place, where they are attacked and eaten by red ants. The worms are drawn towards this bare place by the combination of odours from the seboka and their burning fellows; while those attempting to hide themselves under the ground are rendered too stupid to do so by the smell of the phate-ea-ngaka. Such a practice is not strictly speaking ho upa (to doctor a field), however. Ashton (1967, 127) writes that the medicine for cutworms

> "... is mixed with layers of worms and leaves culled from the injured plants, and burnt in a small fire in the windward corner so that the smoke may drift over the field. This treatment is said to be effective at a distance and to cure not only the field in which the fire was made but also other fields from which worms and leaves were collected and added to the fire."

Neither of these remedies, nor any of the others said to exist, is now widely applied. Indeed Mohapi (1956, 28) simply states that the Basotho rely on birds to eat the caterpillars which so seriously damage their crops. Little is done, either, about the rodents and porcupines which eat some crops - although they

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[1] Separately classified from moupello

may sometimes be hunted or trapped. With regard to pests, Sesotho agriculture is probably a more impoverished science than it has ever been. Although it is still common against birds, the use of the agricultural medicines to which people have traditionally resorted is declining; and although knowledge of at least one chemical insecticide is widespread, such modern remedies are rarely attempted. Most Basotho simply collect from their fields whatever crops the elements, weeds and pests leave for them.

The exploitation of local flora The notes above on agricultural medicine have given some indication of the sophistication of Sesotho botany. This subject has been dealt with by a number of scholars (Laydevant, 1932, 1942: Staples and Hudson, 1938; Paroz, 1962; Jacot Guillarmod, 1971), and no attempt can be made here to treat any aspect of it in depth. But it is important to note the botanical expertise of the Basotho, particularly in relation to those flora which they can collect and use [1] - although the impoverished temperate and alpine ecosystems of the country preclude a vernacular botany as intricate and detailed as those developed by many tropical African peoples. Two instances of this knowledge of particular relevance to subsistence from the land will be outlined here.

The first of these aspects of vernacular botany concerns grazing grasses. It is not surprising, in the light of the discussion of cattle presented in Chapter three, that Basotho men and boys should know their local grazing grasses intimately. and be able to incorporate this knowledge into a communal system

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[1] See Jacot Guillarmod, 1971, 408-458.

of rotational grazing. A senior herdboy interviewed at Ha Khoeli, for example, named the following grazing grasses found locally:

Table 4.35 Some grazing grasses at Ha Khoeli

Name	Comments
Seboko	A very green grass found on ridges and flanks of mountains
Malelu	Found on grass strips between fields
Mohlomo	
Mohlakapoto	Grows near rivers. Eaten by cows.
Lesoane	Grows near rivers. Fodder for horses.
Kholane	Grows near rivers. Eaten by cows and horses.
Mokoro	Found in valleys. Eaten by horses and cows.
Molula	Eragrostis plana, Arundinella nepalensis, Pogonarthria squarrosa. Grows on middle slopes. Eaten by cows.
Moseka	Said to have been eaten by people in the old days. Now eaten by cows. Grows on hills and knolls. Paroz (1950) states that this is the "seed of the matolo (Eragrostis curvula) and other grasses".
Letsiri	Digitaria setifolia. Grows high up on the mountain slopes. Eaten by cows.
Lehola	Weeds from the fields used as fodder or grazed after harvest.
Tsahane	Found in the valleys. Eaten by cows.
Mofantsoe	
Lebate	Cymbopogon dieterlenii, C.marginatus

The herdboy stated that sheep ate all of these grasses, but that cattle like seboko and mokoro best. This single instance of a Mosotho's knowledge of grazing resources is presented as an index of the expertise villagers continue to deploy in exploiting their landscape. This mode of exploitation continues to be a worthwhile one, unlike farming, and the application of such knowledge in the practice of active husbandry is still required.

It is interesting to note that Sesotho knowledge of grass types has also been applied to human subsistence in comparatively recent times. In the severe drought of 1932-33, many people were compelled to collect grasses, thresh them and make flour from them. It is said that three of the types eaten were seritsoane (Eragrostis chloromelas), tšaane (Digitaria caesia, E. racemosa) and molula (Eragrostis plana)

The second aspect of vernacular botany to be considered is an area of predominantly feminine skill. Although Basotho women are increasingly cultivating western vegetables such as carrots, beetroots and cabbages in the gardens attached to their homesteads, they continue also to cultivate some more traditional varieties and to collect a wide range of wild vegetables from the field areas and the countryside. It is again impossible to attempt a comprehensive listing of these, but an indication of the range of vegetation commonly exploited is provided by the following table. This shows the types of vegetable a group of women, interviewed while weeding at Ha Khoeli, were able to name. Many of these plants are boiled to form the moroho (green vegetables) central to a proper Sesotho meal.

Table 4.36 Some Sesotho vegetables eaten in Ha Khoeli

Name	Where collected/ grown	Linnaean classification (from Paroz, 1950 and Jacot Guillarmod, 1971)
Sepaile	Gardens	Sisymbrium thelungii
Serue	Fields	Chenopodium album
Thepe	Fields	?
Papasane	Fields	Rorippa nudiuscula
Lintokojane, senthokojane	Fields	Sonchus nanus
Mololo	Fields	Cynarchum virens

Table 4.36 Some Sesotho vegetables eaten in Ha Khoeli (cont.)

Name	Where collected/ grown	Linnaean classification
Searane	Fields	?
Tlhaku ea khomo	Naheng (see Ch. 3)	Capsella bursa-pastoris
Petlekheme	Fields	Anchusa capensis
Qhela, selitsa	Gardens	Lepidium capense
Leraka	Woods	(a small pumpkin)
Lefisoana	Naheng	Lithospermum cinereum
Selai	Rivers	(lettuce)
Mobatsi	Village	(nettles)
Tenane	Fields	Wahlenbergia androsacea, W. undulata, W. caledonica, W. undulata, W. zepheyri
Moeebe	Fields	?
Leshoabe	Fields	Senecio Gerrardi
Moopetsane	Woods	Wahlenbergia undulata
Leharasoana	Fields, naheng	Sonchus dregeanus, S. ecklonianus
Leshokhoa	Naheng	Xysmalobium undulatum
Monyaku	Fields	Solanum supinum, S. capense; Cucumis myriocarpus, Coccinia hirtella; Melothria cordata.
Nama ea noka	Rivers	?
Telu tsa poko	Gorges, valley heads	Helichrysum coespititum
Peo ea khoho	Village	?
Lefokotsane	Fields	Thalictrum caffrum
Manku	Village	Lasiospermum bipinnatum; Gnaphalium luteoalbum
Malana a likonyana	Fields	Nemesia capensis, N. pubescens; Diascia integerrima
Qoqobala	Fields mountains	Stellaria media; Cerastium capense,
Marama a baroetsana	Fields	Sebaea leiostyla, S. thomasii, S. macrophylla
Mankiling	Fields	Asclepias multicaulis
Montsoko	Fields	Asclepias gibba, A. eminens
Moetse	Fields	?
Seru	Fields, villages	Sisyranthus imberbus
Seshoabohloko	Village	Solanum nigrum

Again, this list merely points to the need for further research into Sesotho domestic botany and the way it contributes to households' subsistence. A study of the ways in which Basotho differentiate the appearance and qualities of these many vegetables would prove rewarding.

It is believed that the information presented in this section on agricultural and environmental knowledge helps to explain the Basotho's relationship with the land. It has been shown that in two areas of expertise central to the practice of agriculture - knowledge of soils and of crop types - Basotho have established systems of knowledge which, for a combination of reasons, are no longer of everyday relevance and whose currency is probably declining. The importance of another area of expertise, the identification and combating of pests, is widely recognised: but traditional modes of response, whatever their efficacy, are adopted with decreasing frequency, without yet being replaced to a significant extent. With regard to increasing the fertility of the soil by applying additives or returning nutrients to it, Basotho today - despite what they know of chemical fertilisers - probably do less than their forefathers, who had a more luxurious resource base to exploit. The technical approach of modern Sesotho farming, as exemplified by this brief survey of agricultural knowledge, is minimalist. But in other aspects of the rural economy, such as grazing and collecting vegetables - which resemble more closely the practice before the pattern of close, settled cultivation was established - the intricate array of vernacular knowledge has greater relevance and is in less danger of falling away.

Conclusion

An answer may now be suggested to the question posed at the beginning of this chapter: in what ways has Sesotho farming evolved into the participatory, constructive mode of exploitation required by modern economic and demographic circumstances, or to what degree has it failed to change? It has been shown that the pattern of land-holding altered at an early date in response to the new technological opportunities offered by the plough, and that the administrative structures of land tenure have continued to function effectively in sharing the land equitably as a subsistence resource. But the degree to which new farming knowledge and skills have been acquired has not been concomitant with the nature of the transformation that has taken place - from casual cultivation amid abundant resources to the annual exploitation of fixed parcels of land. The areas of expertise and science discussed in this chapter are more representative of the former mode of exploitation than of the latter. In an area of farming practice where significant developments might be expected in the course of such a transformation - the addition of nutrients to the soil - Sesotho agriculture has not altered greatly, as the vagueness of most respondents' replies about fertilisers show. In another important development - the increasing popularity of beans as a cash crop - the Basotho have responded rapidly to the economic opportunity but have not found it necessary to evolve their farming practices or knowledge significantly: the government subsidises them by providing much of the skill required, making suitable crop varieties available and ensuring that only these 'white beans' are repurchased.

As has already been argued, the economic circumstances of Sesotho farming are the central determinants of its condition and prospects. Socio-economic pressures have moulded the form of Sesotho agriculture, and it may be concluded from the discussion in this chapter that they have not produced a participatory mode of exploitation adequate for perpetual (and, ideally, increasing) production on the land. Rather, traditional systems of knowledge and practice have ossified and atrophied. At each stage of this process Basotho land-holders have made rational decisions in the face of economic pressures and opportunities. These decisions have led them away from the land, but have not permitted them to ignore it. Farming is not worth their while, but their subsistence still requires it. Opportunist exploitation, rather than dedicated husbandry, is the predictable response to such conditions, and it is that which this chapter has described. Support will be sought for this analysis of Sesotho agriculture in Chapter six, through an investigation of attitudes to farming and its place in culture and economy. First, however, it is relevant to enquire into another aspect of Sesotho agricultural expertise, which effectively absorbs many man-days in addition to those devoted to the technical operations of farming. As the practice of agriculture has become more impoverished, one area of skill which the Basotho may be argued to have evolved and elaborated significantly is the deployment of the human element.

CHAPTER FIVE

SOCIAL NETWORKS IN FARMING

Introduction

A brief examination will now be made of the social relationships in which Basotho are involved in their performance of agricultural tasks. It has already been indicated that Sesotho farming is undertaken in conditions of some hardship. Physical problems, such as low and irregular rainfall, and the results of demographic pressure, such as exhausted or eroded soil and small land holdings per household, are severe. Two further problems should be considered with regard to their effect upon the productivity of agriculture in Lesotho. Firstly, able-bodied labour is in short supply. (The circumstances of migrant labour have already been considered in Chapter two.) Secondly, many land-holding households lack essential material inputs for successful production: these include tractive power, implements and seed and, at a less fundamental level, fertiliser and perhaps insecticide.

Taken together, these factors constitute a characteristic of Sesotho farming which appears to require attention in an analysis of contemporary conditions or prescription for change. Few households can farm as independent, self-contained units (Sheddick, 1954, 83 et seq.). Almost all must make some arrangement for sharing the factors of production. The significance of this will now be investigated: the types of arrangement that are made will be examined, and types of land-holder will be defined in the light of these social relationships.

To conclude this assessment of the importance of social networks in farming, a detailed example from Ha Khoeli will be presented, which indicates the complexity of such arrangements.

Sharecropping

The practice of sharecropping (halefote, seahlolo) has evolved as a formal arrangement for the resolution of a household's inadequate supply of the factors of agricultural production. As was noted in Chapter two, agriculture is necessary for almost all rural Basotho households, and the practice is therefore also adopted by some who hold no fields at all. Sharecropping is thus an institution for the distribution of five basic factors of production to permit the harvest of crops by agricultural units (households) which would otherwise be unviable. These factors are: land, labour, tractive power, implements and seed. Various combinations of these factors are encountered in the contributions of the two parties to the arrangement. Two considerations distinguish sharecropping from the other forms of combination discussed in this chapter. Firstly, it is a formal arrangement spanning a full season, from ploughing to harvest, and renewable (if desired) each season. Secondly, it stipulates the distribution of the harvest between the two parties in a fixed proportion. The most common practice is to divide the yield equally.

Reference to three types of household which often resort to sharecropping will illustrate the workings of this institution. The first of these is the poverty-stricken, residual household, consisting of an old widow living alone or with a grandchild or two. Such an old woman may hold one or two fields but possess

no cattle or agricultural implements, apart perhaps from a hoe. Even if she did, she would lack the strength to cultivate her land. She lacks the money to hire labour, tractive power and implements, and may even be too poor to buy seed (although she may have been able to preserve this from a previous harvest). She therefore makes a sharecropping contract with a household able to plough and plant her land and provide labour for weeding and harvesting. Such a household is likely to be at a mature stage of development, well enough established to have acquired some livestock and implements and to have resident men or boys able to provide labour at ploughing time. The old woman may provide food and beer for those who do the ploughing and planting, or this responsibility may be shared between her and the other household[1]. Similarly, she will work with the women of her partner household on weeding and harvesting. Although her partners have done most of the work, provided cattle and implements and perhaps taken a risk by purchasing seed, she will almost certainly retain half of the yield. Compared with the other factors of production, land has a much higher value in terms of the proportion of yield to which it entitles its holder in a sharecropping arrangement. The old woman, if she holds two or three fields, may sharecrop them all with the same partner or may enter into arrangements with a different partner for each.

Secondly, a younger household may lack only one of the factors of production. Most commonly, in cases of sharecropping, this is seed. Households lacking cattle but having implements and labour, or having cattle but lacking a plough or manpower

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[1] These supplies are a subsidiary but essential requirement for agricultural production, as was seen in Chapter four.

are more likely to make other arrangements of the type to be discussed below. A household which has fallen on hard times and lacks the seed to plant one or more of its fields, or the money with which to purchase seed, may sharecrop that land with a more fortunate household. Such a sharecropping contract may even be applied to a portion of the field. Contributions from each party are again very varied. The other household may provide seed and help with ploughing and planting, but even if it does not undertake these tasks it is almost certain to provide labour to help with weeding. Whatever the details of a sharecropping arrangement, both parties almost always contribute towards weeding the land in question. The division of yields in this type of arrangement is more varied than in the first type discussed. If one party has provided only seed, for instance, it may be agreed that it should receive less than half the yield; although in recognition of the risk which has been taken, it is not uncommon for it still to receive an equal share. If a household sharecropped only part of its field, having the resources to grow a crop independently on the rest of the land, half of the yield from the sharecropped part will be retained and half will accrue to the other party.

Thirdly, a younger type of household may be considered, which has some of the factors of production - commonly cattle and/or plough and planter, purchased with the household head's earnings in South Africa - but lacks land, or has only one field. In some areas it is uncommon for a household to advance to the stage of prosperity where it owns several cattle and implements, without being able to obtain a field; in others the density of population makes this quite usual. Such households may enter

sharecropping arrangements with other households which have fields but cannot supply tractive power, seed, plough, labour or some combination of these. Most commonly these partners are the residual households already discussed. Again, unless the relative contributions of the two parties have been most unequal, each will receive half the yield.

Sharecropping has often been discussed in analyses of Lesotho agriculture. Far less attention is paid, however, to the other forms of arrangement discussed below. In the census of Ha Khoeli (see Appendix I), a population of 206 fields was enumerated in questions relating to the summer 1975-6 season. Of these, 40 (19.4%) were reported as sharecropped. The proportion of the 206 fields sharecropped the following summer (1976-7) was reported to be 22.3% (48). In the national agricultural census of 1970 (Lesotho, 1972, 53), 13.5% of farm households overall reported sharecropping: the proportion for the lowland zone was 18.9% and for the foothills 10.4%. The equivalent proportion of households at Ha Khoeli in 1975-6 was 27.7% and in 1976-7 26.2%. Of the majority of fields which are not sharecropped, however, only a small fraction are cultivated through a season from the resources of one household only, as will be shown by the detailed evidence from Ha Khoeli below. Very few households are wholly independent in their resources of labour, tractive power and implements for all tasks in the agricultural cycle. Indeed, the parties in a sharecropping agreement are not often wholly independent in the supply of their respective factors of production.

For the sake of simplicity it has been stated simply that

each side 'has' certain factors of production which it can contribute to a sharecropping arrangement. In many cases, however, contributions by one party to such an agreement are not the sole property of that household but have been marshalled together for its use through various less formal arrangements with other households. A man ploughing and planting an old widow's field in a sharecropping contract, for instance, may be using four of his own cattle and two of a close friend with whom he habitually does agricultural work; he might hire a harrow or planter from someone in a neighbouring village; and when his wife and daughters go weeding with the old woman they may be accompanied by the friends or relatives with whom they usually do this work. The less formal relationships which articulate the performance of agricultural tasks will now be discussed.

Ploughing

Whereas sharecropping, as a formal institution spanning a whole season, required separate explanation, these less formal links between friends and relatives may be discussed with reference to the two forms of labour into which the tasks of the season may be grouped. These centre respectively around the operations of ploughing and weeding. As was shown in Chapter four, planting is closely connected to the ploughing process. Harrowing and the use of a cultivator, being tasks involving ox-drawn implements, may be regarded as corollaries to ploughing for this purpose. Weeding is a separate operation because of its position in the agricultural cycle; the length of time it takes; and the predominant sex of the workers involved. Harvesting is similar to weeding in terms of the relationships under consideration here. The strategies available to the

land-holder in his attempts to ensure that these agricultural tasks are carried out may now be described.

In ploughing and planting the land-holder's alternatives fall into four categories. Firstly, he or she may plough using the household's resources only (viz. cattle, plough, labour and seed). Secondly, a contractor may be hired to plough by tractor or with cattle and a plough belonging either to contractor or land-holder. Thirdly, a formal sharecropping arrangement may be undertaken. The fourth possibility is to enter an informal arrangement with another household or households so that some combination of labour, animals and implements is achieved which is used on the land of this and the other households involved.

Very few households exhibit the first pattern of ploughing based entirely on the household's own resources. A man ploughing his land with what appear to be his own oxen may in fact be holding them on a lefisa loan from someone in a different village, for instance, or have permanent custody of some of the animals belonging to his widowed mother. Even where cattle and implement come from within the household, moreover, there are probably very few cases where the labour is all drawn from within the residential household of which the field-holder is head. In many cases these more prosperous, independent villagers are old and it may be a son, himself head of a separate household, who holds the plough; or a herdboy in the team may come from a different family under a separate arrangement concerning the herding of cattle. Further, few such household heads refrain entirely from friendly cooperation in the working of other people's lands in the manner of the fourth alternative described below.

The hiring alternative is commonest among new, junior households where the husband is absent at work and so unable to contribute his labour to some informal, cooperative arrangement (or, less commonly, a sharecropping contract) whereby his land might be worked. Cash is more often available in these households, however, and the migrant labourer's remittance may be used by his wife to pay a contractor to plough his land. This is facilitated by the fact that such young households commonly hold only one field, so that the cash outlay is not too large. Occasionally an old widow may be able to afford this method of ploughing if she receives money from younger members of the family. In most cases of young and residual households, however, it is more common that a cooperative arrangement of the fourth type discussed below is possible without a cash transaction. Where hiring for cash does take place, it is often because the money happens to be available and the opportunity is taken to get the field ploughed immediately rather than spend a long time negotiating with relatives and friends before the job can be done.

In most cases, as was shown in Chapter four, planting consists of broadcasting the seed over the ground immediately before ploughing. In these cases, broadcasting is generally part of the contracted ploughing operation. Planters are often hired out, either in individual arrangements between the owner of the implement and a man who has cattle to draw it, or as part of larger ploughing contracts of the type just discussed. Harrows and cultivators may also be hired in a similar manner. Indeed, those choosing to invest in these implements are guided in part by the knowledge that the purchase price can be recouped in a year or two by hiring them out. As was noted above, a

party to a sharecropping arrangement may independently hire one of these implements for use on sharecropped land. If such a party happens to own a planter, harrow or cultivator, however, the arrangement will probably extend to his using them on the field in question.

The tractor occupies a discrete position in the network of factors of production and social-contractual relationships. In the northern lowlands, where the machines are more numerous, it is common for tractor owners to sharecrop with field-holders (Khomokhoana Rural Development Project, 1976a, 23-24, 1976b; Duncan, 1976, 2-4). Such field-holders tend to have fewer cattle, implements and able-bodied adults to work their land, and slightly larger holdings than the average. The contractors not only provide tractors to plough but generally supply other inputs such as seed and fertiliser. Many tractor-owners have become dissatisfied with the high risks such sharecropping entails for them, however, and tractor sharecropping is declining in favour of cash hire. The latter is the more usual practice elsewhere in the country if a tractor is used. Tractors are most likely to be hired by a subgroup of those households likely to hire cattle for ploughing: those young households and, less frequently, residual ones, with sufficient income to afford the higher rates. In addition, certain senior households may be prosperous enough in some years to hire a tractor.

The third alternative for a land-holder planning to plough his field is to sharecrop, a method which has already been discussed. Types of household likely to engage in sharecropping arrangements have also been indicated. Sharecropping is probably a more common strategy for ploughing and planting than hire, but

is resorted to less frequently than other types of arrangement between friends and relatives.

The commonest type of strategy in field management involves informal cooperation between the field holder and other members of the community. The question of the significance of kinship and friendship in determining who associates with whom will be treated below. It may be noted, however, that in ploughing there is a common link between old people and their offspring. This may take such forms as a young man managing the ploughing team of his father, or using his own cattle to plough his mother's field.

One sort of cooperation frequently encountered may be represented by the phrase "re lema le eena" (I plough with him). This type of arrangement between two or more men is a friendly association which goes on from season to season. The men may either pool animals and equipment, ho kopanya sepane, to make one ploughing team (relative contributions, and sometimes participants, probably varying from season to season) - which they then use to work all their fields - or they may each bring a plough and a team of oxen to each of their fields in turn. Thus several fields of average size were seen at Ha Khoeli on which three teams of six oxen each were ploughing at once. Such arrangements may enable one party to go off to the mines in the knowledge that his fields will be ploughed by his friend that season. Some of these relationships are so close that one partner will also fulfil his absent partner's sharecropping obligations in addition to looking after his household fields.

It has already been noted that kinship articulates many ploughing relationships. Brothers may plough with each other in the manner just described. Fathers and sons may help each other to plough with mutual contributions of cattle, implements and labour. Sons may assist mothers who lack the resources for the task. There is another type of ploughing relationship, which may be articulated by pure charity. An old man may, for instance, arrange the ploughing of a widow's fields because her husband was a good friend of his. In a number of cases, however, it was suspected that informants alleging charity as the motive for help in ploughing were in fact reluctant to disclose details of hiring arrangements or other relationships which were actually the substance of the arrangement. Few villagers, naturally, give something for nothing.

Scarcity of adult male labour controls the form of ploughing relationships in Lesotho. The scarcity of a second type of labour is also relevant. Some stock-owning households lack a boy of a suitable age who can go out each day to herd the animals. Sometimes a boy is hired from another household. In other cases it is agreed that a boy from another household should herd the stock in return for which his family's land will be ploughed in the spring. Old women who have grandsons living with them are sometimes able to ensure the ploughing of their fields in this way.

In the web of contractual and informal links between households, the chief occupies a unique, intermediate position. In the past, chiefs had rights to contributions of agricultural labour from all households under them; this labour was

originally intended for the cultivation of the tšimo ea lira (field of the enemies, intended to provide food for soldiers off to battle and other communal emergencies), and was steadily extended to apply also to the chief's fields and those of his wife or wives (Ashton, 1967, 207; Sheddick, 1954, 82). Work parties in the fields or elsewhere are termed letsema (plural matsema)[1]. The burden of letsema labour imposed by chiefs upon their subjects reached an unacceptable level in the 1930s and 1940s. A combination of legislation and simple refusal by villagers so to oblige the chief has led to the decline of the letsema for ploughing so that no chief can now insist that his subjects work his land in this way. The chief may still be seen to exercise some authority through the letsema, however. This institution requires the holder to provide food and beer (the emphasis being upon the latter) for those who come to perform the task in question, which, as will be noted below, is most commonly weeding. Some days are spent in preparation and substantial amounts of food and drink may be provided if large numbers are expected: the event is of course well publicised (Wallman, 1969, 54). The letsema normally lasts one day.

Commoners very rarely hold a letsema for ploughing, however. This is partly because the work often lasts more than one day and because men and beasts are too busy with their own work in the ploughing season to be disturbed by such a work party. The task of ploughing has too high a value, in terms of men's and cattle's time and effort and the availability of implements,

[1] See Casalis' illustration of a letsema in the old style (1861, facing 163).

to be exchanged for a little food and beer in a letsema. But the chief may hold a ploughing letsema, in which men bring their oxen and ploughs and participate in fulfilment of a perceived responsibility to the community and their own status. The chief is able to get this work done because villagers wish to establish or enhance their status as solid citizens who in turn deserve favourable treatment from him. In farming relations with the chief, villagers often make substantial contributions for little immediate material reward, guided not by motives of kinship or charity but by the residual authority vested in the office. However, the chief may also engage in the other types of relationship discussed: if his lands are many and large he may, despite the availability of the letsema strategy, be obliged to sharecrop some of them. He also has friends and relatives with whom he shares in farming tasks like any villager.

Weeding

The chief or the commoner may call a letsema for a variety of tasks, such as gathering firewood or poles for a fence, or threshing a sorghum crop. It is most popular, however, as a strategy for weeding, the second principal agricultural operation in this discussion. This institution has already been briefly described (see also Ashton, 1967, 131; Wallman, 1969, 54). If it can afford it, a household will invite all and sundry to come with their hoes, digging sticks or bare hands and weed a field. Large amounts of beer and substantial refreshments of porridge, beans or other foods are provided and the occasion can be a joyous one, with much singing and ululating as the work is done. Those with hoes work across the field in a line, swinging their implements in rhythm with the songs they sing;

from time to time a man may leap out from the ranks and, in Ashton's reserved description (1967, 131), "executes a pas seul" in front of the others. The supply of beer tends to attract more men to this type of weeding operation than generally care for the task. The work goes on until the field is finished, or for most of the day if it is too large to be completed.

One apparent letsema observed at Ha Khoeli was in fact said by some participants to be a distinct institution, ho hata maoto (to tread in the footsteps). The field in question was still theoretically held by an old woman, recently deceased. Her daughter-in-law was managing it for the time being, and had extended a general invitation for people to come and help weed it. Food and drink were provided and the work was as usual accompanied by singing and dancing, but it was said that this was not actually a letsema: the participants were helping as a gesture towards the deceased. Others were less convinced about the distinction between the two concepts, however.

Other strategies for weeding may be discussed under the four headings used in the examination of ploughing relationships above, although the categories are in this case less distinct. It was noted in Chapter four that weeding is predominantly a woman's task and that it takes place over a period of two or three months; a single field may take several weeks to weed. It is therefore a more diffuse operation than ploughing: unlike the latter task, it does not make intensive demands upon scarce resources of male labour, cattle, implements or time. In consequence it is common for more than one of the four strategies to be combined in the course of weeding a household's lands.

On rare occasions, a household may draw only upon people living in that household to provide the labour for weeding. This is most commonly the case where young wives still live with their parents-in-law, their husbands being absent or not yet having established a separate household. The weeding team might thus consist of a grandmother, her daughter and perhaps a young unmarried daughter, a small grandchild or the grandfather himself. It would be most unusual, however, for the women not to be accompanied on at least some of their weeding days by friends or relatives from other households.

A second strategy is for a household to hire labourers to help with the weeding. Such a practice is restricted to more prosperous families which for some reason lack sufficient labour to be self-sufficient in this work: a rich man's daughters may be away at school, for instance. In Ha Khoeli few people hire weeding labour. The real cost of the practice is increased by the fact that those offering themselves for hire tend to be destitute old women who do not complete the task quickly; as weeding labourers are paid by the day there is indeed no great incentive for even able-bodied women to work quickly. A less formal arrangement which may also be placed in this category is when a landless, poverty-stricken old woman helps various households with their weeding and is rewarded with a small amount of grain from each at harvest time.

As was noted earlier, sharecropping arrangements almost always incorporate joint responsibility for weeding the land in question. The smallest contribution to a sharecropping contract carries with it an obligation to help with the weeding.

A household owning stock and a plough which undertakes to sharecrop several fields with households lacking these resources therefore burdens itself with a heavy load of weeding later in the season, unless a planter has been used and a cultivator can also be made available to accelerate the task. (Some hand weeding is necessary, however, even in the latter instance.) The responsibility for weeding places a limit upon the extent to which the enthusiastic farmer, having cattle and a plough but limited land himself, can sharecrop with, for instance, widows and young households in his vicinity and support his own household entirely by farming. Even if he uses a planter and cultivator and then helps his wife and daughter in hand weeding with the partner households, the number of fields he can arrange to weed in the summer is not large.

A household having all resources for farming except weeding labour - eg. a widower with field, cattle, plough and seed but living alone without wife or children - would be most unlikely to resort to sharecropping as a strategy for ensuring the performance of this task. His mother or sister would help him weed; he might call a letsema or hire one or two women to assist him with the work; or he might hire a planter for a day and subsequently a cultivator, finishing off the hand weeding himself or leaving that task out.

It is most uncommon for a household consisting even of a single man to be isolated with regard to weeding, however. As was noted in Chapter four, people prefer to work together at this task. The presence of a group of workers greatly relieves the never-ending tedium of weeding a field with a hoe. In addition

to the various arrangements whereby actual lack of weeding labour is remedied, therefore, there are numerous combinations of people who weed together rather than weed separately. Family groups - mostly women, with their various children and sometimes a man in attendance - commonly arrange to weed all their fields together. Thus an old woman may be helped on her fields by various daughters or daughters-in-law and may reciprocate on their land. Alternatively a teenage girl might go out to help her grandmother, or women from more remotely related households may cooperate in this work. Moreover, the arrangements whereby heads of households help each other from season to season in ploughing often also involve cooperation in weeding. At least equally important as a criterion, however, is simple friendship, which often determines whether kin in fact help each other to weed. Groups of friends may help each other to weed from season to season. Teenage girls in particular like to help each other in their weeding responsibilities: the girl referred to above helping her grandmother may thus be assisted by two or three friends, on whose families' fields she in turn helps with the task.

Labour requirements for harvesting and threshing vary with the crop but tend to be smaller than those for weeding. Maize is often harvested over a long period, by one or two women who may make a journey to the field, fill one or two bags and repeat the process a day or two later. Its separation from the cobs is usually an occasional task in the homestead. The harvesting of sorghum is not an intensive task either, although the ravages of birds sometimes make it more urgent. If the crop is large, however, a letsema may be called for threshing the sorghum heads. The harvesting of winter wheat may be a more urgent task, for

which a letsema may also be called. As wheat crops are rarely large, threshing of the crop is an occasional task in the household. In all these cases, as with other crops, sharecropping responsibilities normally extend to a joint obligation to work on harvesting where this is a significant task. As with weeding, friends and relatives often help each other with this work: a girl may help her friend winnow the family wheat crop, or an old woman visiting another may help her sort beans as they talk.

Problems and delays

It has been shown that a complex and various network of social relationships - ranging from formal contracts to the mutual contributions of friends - sustains agriculture in Lesotho. In very few cases are these relationships uni-directional expressions of charity. Almost all require two or more parties to make a contribution; they therefore involve negotiation and may often give rise to tension or recrimination. The description of these relationships offered above will have suggested many occasions where careful arrangements are required and where difficulties and delays may arise. In sharecropping, a clear understanding must be reached between the parties as to who is to contribute what at each stage of the season, and what their respective proportions of the harvest are to be. There are therefore many opportunities for one party to be dissatisfied at the performance of the other. Such disagreements often cause delay in the execution of agricultural tasks or cause them to be inadequately performed. If one party is in a stronger position than the other - eg. a middle-aged man using his cattle, implements and labour to sharecrop an old woman's field - he may exploit his advantage to delay or perform inadequately farming

tasks on the sharecropped land and necessitate protests, reminders and arguments by the other party. The wife of one party may spend more time weeding, and work harder at it, than the wife of the other; or one party may produce a seed type different from that which he promised when the agreement was made. The numerous problems that may arise in sharecropping render many Basotho wary of it (Wallman, 1969, 52-53). Some have partners with whom they work well and whom they trust year after year; but many who need to make arrangements with others in order to use their land delay ploughing as they try to negotiate a satisfactory agreement with someone they can rely on; others may still be wondering how to arrange things for the best when ploughing time is over.

Arrangements between kin and friends offer less scope for serious recrimination, but as relationships for mutual assistance they still require negotiation and may lead to dissatisfaction. Even where friends have been working well together for years, many agricultural operations are delayed as partners try to arrange their mutual contributions and rearrange plans which have broken down. Three men who plough together must agree to bring their cattle and implements together to plough the field of one of them on a certain day, for instance; when one of them becomes ill or is called away to a funeral the other two must proceed without him or make alternative plans, altering their arrangements for ploughing the other fields of the group accordingly. A young man may complain about having to farm his mother's fields and delay the job, doing it badly; or he may refuse to work there at all, forcing her to sharecrop or try to negotiate with other relatives. A young woman may get on badly

with her mother-in-law and spend her time at her parents' place when her husband is away at work, forcing the old woman to weed alone or perhaps try to hire others to do the work. A man may borrow his brother's planter in return for a promise to help the latter plough a field he is sharecropping the following week, and then feign sickness or bring only two oxen instead of the three expected. A friendly relationship for ploughing or weeding may run successfully for several years and then suddenly break down one season with the death of one partner, his absence at work or damage to an implement (cf. Murray, 1976b, 113): this necessitates a rapid reassessment of other potential liaisons within the community and an attempt to enter another such relationship before the season has advanced too far.

Who works with whom?

These few instances of the difficulties which may arise in negotiating and prosecuting the contractual and informal relationships upon which almost all Basotho must depend, in order to farm their land, are an indication of the amount of time and ingenuity they are required to invest in the social skills of their agriculture. This analysis of the social articulation of farming will now be developed with reference to the relative significance of kinship and friendship in this process (cf. Wallman, 1975). Murray considered these questions in a more elegant discussion than can be offered here (1976b, 99-129), to which frequent reference will be made. In a society such as that of the Basotho, an adoption of kinship as an analytical concept must be qualified by the recognition that most people in a village community are related to most other people and that therefore "the distinction between kin and non-kin is

a quite arbitrary one" (Murray, 1976b, 121; cf. Wallman, 1975, 336). It is of limited value to count, for instance, the numbers of sharecropping arrangements whose partners are related to one another and the number where they are not. Rather, one must enquire as to the basic motives of partners helping each other in these and other agricultural relationships. To begin, however, the relevance in this regard of kinship ties between the members and descendants of residential households may be examined. (By 'descendants' is meant those children of a family who have set up separate households, and their children, including children-in-law.) The broader networks of obligation and expectation which articulate farming may then be considered with reference to ploughing and weeding, following the pattern established earlier in this chapter and used also by Murray.

Some of the links in the farming networks under consideration are derived from close kinship ties, normally between generations rather than within them. They permit the transfer of two factors of production: labour, and material resources (land, cattle, implements). Most commonly, the former element is transferred from younger generations to the senior, and the latter in the opposite direction. A household consisting of an old man and his wife, for instance, with a married son and his wife still resident there together perhaps with an unmarried daughter, may cultivate the old man's three fields: he provides land, cattle and plough, but his son is in charge of ploughing and planting and his daughter-in-law and daughter do the bulk of the weeding and reaping work for his wife. If all the children of such a senior household have been established elsewhere, it is still probable that the old man's sons will help

him with his ploughing or even manage his land completely, also using his cattle and implements to work their own fields. Daughters-in-law may also help with the weeding on the fields of their parents-in-law.

In the case of relict senior households, consisting usually of old widows, the transfer across the link may be more one-sided. The old woman's sons may provide both labour and material resources, with the exception of the field itself; the old woman may do the weeding herself or be helped by daughters-in-law and grandchildren. Despite the apparently unequal contributions involved, the children who help an old woman in this way do not necessarily expect recompense (in the form of a sharecropping agreement, for instance). A more even transfer may occur if the old woman still owns cattle and implements from her husband's lifetime, in which case farming arrangements may follow the pattern described above.

Relations between independent, married sons and their impoverished, widowed mothers are often a cause for argument, recrimination and litigation in Sesotho village life. Yet, as in the case above where the older household retains its independence, these substantial transfers of labour and resources take place between senior and younger households because they are close kin. It has been noted that tractive power, implements and land are scarce in Sesotho agriculture in addition to the labour shortage. The deployment by senior households of these resources for the benefit of close kin rather than in sharecropping or hire arrangements, for instance, is therefore in some cases as substantial a gesture as the dedication of labour by the

junior partners to the senior.

Certain links in the network are thus identified which are created because the parties are close kin of different generations. In the main, kinship as the inspiration for creating links is limited to these cases of close relationship between senior and younger households, forming a category of social link discrete in this regard from the four discussed here in connection with ploughing and weeding. (In some cases, relations between the generations are for personal reasons more distant. It is occasionally possible therefore to find a father hiring out his planter to his son, or a son sharecropping his mother's field.)

Consideration will now be given to the majority of the links which have been discussed in this chapter, with reference to the tasks of ploughing and weeding. Some of these are guided by purely mercenary considerations; most are inspired by friendship. To explain the motives behind these relationships, Murray develops an argument which is supported in the main by observations during this study. He begins by noting (1976b, 101-102) that the ploughing operation requires the deployment of resources in which there is an absolute scarcity: male labour, tractive power and ploughs. Weeding, on the other hand, requires inputs which are relatively abundant: female labour and hand hoes. He argues that

> "One would therefore expect patterns of cooperation in weeding and reaping to reflect association by criteria of kinship and friendship, whereas patterns of cooperation in ploughing are subject to technological constraints and reveal arrangements which are haphazard and short-term contractual rather than the operational manifestation of more permanent multiplex ties." (1976b, 102)

He discusses the farming operations which take place during the season and the relationships which articulate them, and goes on to point out the difficulty of adopting kinship as an explanatory concept, stating that

> "... (1) any attempt to isolate the factors which articulate cooperative networks in Lesotho must distinguish between distinct forms of cooperation; (2) these distinct forms can be placed on a continuum defined in terms of a variable balance between capital-intensive and labour-intensive techniques..." (1976b, 124)

He then maps the various links between households for ploughing and weeding, and ranks these on a continuum according to their degree of short term and long term commitment, which he suggests largely correspond with capital-intensive (ploughing) and labour-intensive (weeding) operations respectively (1976b, 129). Murray notes Bloch's emphasis upon the security of a long-term moral commitment as the essence of the kinship relation: he concludes from this "that the degree of moral commitment in relationships may be inferred from their longer or shorter term" (1976b, 123) and infers that kinship links are most likely to be relevant at the labour-intensive, 'weeding' end of the continuum.

Murray's neat model of a continuum between capital-intensive, short-term commitments associated with the ploughing operation and longer-term, more multiplex ties connected with weeding, is a helpful guide. It is inadequate, however, in its description of certain aspects of the real situation. It is true that kinship ties appear more often between weeding partners than between ploughing partners. It is more useful, however, to treat separately those cases where kin help each other to plough or weed because they are kin, as was attempted above.

In considering the majority of links in farming networks one must, as Murray notes, look for other motives behind the fact that partners happen to be kin. Kin join resources because they are friends, or more rarely because one party is paying money to his kinsman. Some modifications may therefore be suggested to Murray's continuum model with the identification of certain links inspired by friendship and links supported by a financial transaction.

Considering weeding, it must be noted firstly that a small minority of these operations are performed by hired labour. Here the moral commitment is minimal and of a short-term contractual nature, unless a prosperous household makes a point of hiring the same destitute old woman to weed every year. Where weeding relationships are contractual their position on Murray's continuum is ambiguous. Most weeding is, however, carried out by groups of women who have a long-term commitment to help each other year after year. They do this because they are friends, with the exception of those close kin discussed above. If for some reason they are not friendly, women who are related to each other are unlikely to work together in weeding their respective fields.

As Murray notes, many arrangements for ploughing are short-term and haphazard, and even friendly ploughing relationships which go on for some years are liable to sudden readjustment. The instances have already been discussed where, on the contrary, strong kinship links guide ploughing relationships. It should also be noted, however, that a substantial degree of long-term moral commitment is immanent in other arrangements

for this operation. This does not of course apply to the hiring of cattle or tractor, where the moral commitment between parties is at its slightest and most brief. As Murray notes (1976b, 126), this is particularly true of tractor hire, where "the contractor is almost invariably a 'stranger' to the village and operates on a wholly commercial basis."

Sharecropping is discussed in connection with ploughing, as it is never undertaken because of one party's lack of labour or implements for weeding. The sharecropping partnership, like hiring, is a short-term, contractual arrangement, valid for one season only, in which the necessary moral commitment is of a 'commercial' sort only. Successful contractual relationships of any type tend to embody something more than a strict honouring of the terms, however. Some households, smitten with indecision or suddenly deprived of one of the factors of production, make urgent arrangements for a sharecropping contract at the last minute in the ploughing season, with partners they may not know well or with whom they have never worked before. Contracts of this type are the most likely to lead to the problems of sharecropping which have been described. Much sharecropping, however, is between partners who know and trust each other well and make contracts with each other year after year; this is particularly true of the common sharecropping situation where an old woman lacks the resources to farm her land, and resorts to the same younger man each season. Other men develop reputations as reliable sharecroppers and successful farmers, and are popular among those households which for various reasons need to make such a contract in certain seasons. In each case, while the official commitment is brief, a longer-term moral

commitment to honest, friendly sharecropping is apparent.

Much ploughing is carried on, as has been noted, by pairs or groups of men who 'plough together' year after year. In some cases they are brothers or more distant kinsmen, but the universal consideration linking certain partners to certain others is friendship and the ability to work well together; such liaisons sometimes derive from partnerships in migrant labour. Here also some long-term moral commitment is apparent and instrumental in articulating the ploughing operation. Murray notes that these partnerships often operate, but prefers to stress the many sudden changes which may occur from season to season to hinder their effective working: one partner's ox may die, or be transferred in a marriage arrangement, another's plough may break, or one of the men may have to leave for the mines. These, he argues, make ploughing a more short-term, haphazard arrangement to be placed on the other end of a continuum from weeding:

> " In view of the unpredictability of migrant remittances and the high rate of residential turnover the household manager has little control over the technology or the personnel required for the essential task of ploughing at the right time" (1976b, 127).

It is true that many sudden problems may hamper friendly ploughing partnerships; yet allowance is often made for these imbalances. The moral commitment immanent in these arrangements does not allow an imbalance in reciprocal contributions in the same degree as that permitted by the security of an effective kin relationship. Yet it can absorb some shortcomings of the type mentioned. The more resources each party contributes, the greater is the partnership's ability to withstand sudden

difficulties such as the unavailability of one man, a plough or some oxen; and the more profound the commitment of these friends to each other, the greater their inclination to tolerate temporary non-contribution by one of their number, although this is always likely to alter the extent to which each benefits from their relationship (Wallman, 1969, 53). As was shown earlier, some friendly ploughing relationships may thus facilitate concurrent migrant labour and farming: one man may leave for the mines in the knowledge that his partner or partners will cultivate his land and perhaps even fulfil his habitual sharecropping obligations for him. The man who one year cannot bring the usual three oxen to the partnership - if the friendship is strong and his partners are not entirely crippled by his failure to contribute - may still be able to help his friends in their ploughing and get his fields ploughed by them. It may be concluded that although severe lack of resources tends to make ploughing relationships brief and less profound than weeding arrangements, an element of long-term moral commitment is often germane to the fulfilment of the task.

Murray's useful model is accurate as an overall comparison between the circumstances of the ploughing operation and the weeding operation in Sesotho farming. It has been shown, however, that various features of actual relationships rather complicate these broad trends. In the light of the analysis offered of the social circumstances of Sesotho agriculture, a brief attempt may now be made to describe certain types of Mosotho land-holder according to these circumstances.

Types of land-holder

A large group of households may firstly be identified, who may be located at the core of village life. These are headed by middle-aged or older men, or occasionally by widows who remain effective managers of land and livestock with resident children to assist them. Households of this group are the most likely to farm independently, having available the necessary inputs of land, male and female labour, cattle, implements and seed. If they enter arrangements with other households it is either to remedy a limited inadequacy in domestic resources, lighten the work load or simply increase the household food supply, rather than to overcome severe deprivation in the factors of agricultural production. These villagers may therefore enter sharecropping arrangements in order to exploit their possession of cattle and implements to the full and obtain a greater harvest for the family. They may contract to hire a planter or cultivator. They may belong to friendly ploughing partnerships, and the women may weed with friends and relations, in order to finish each field more quickly and lighten the tedium of these tasks. The men heading these households have generally completed their careers as migrant labourers, and are wholly devoted to domestic affairs, which include the tending of livestock and crops. These households display a more complete relationship with the land than the other groups to be discussed, but almost all remain indirectly dependent upon other sources of subsistence, particularly through their children. They cultivate their fields each year, but their behaviour as farmers may be characterised as unenterprising, typifying the location of agriculture by the Sesotho world-view which will be discussed in Chapter six.

The second group to be considered are those land-holders actively engaged in migrant labour and therefore often away from the village. In order to grow crops these men, or very commonly their wives, must invest substantially more social ingenuity than the first group in the various relationships discussed earlier in this chapter. Money may be available to enable cultivation by hired plough teams; alternatively a sharecropping contract may be entered. Or, as has been suggested, the migrant may be able to rely upon friends to plough for him in his absence. Much effort and social ingenuity must be expended by these households to ensure that a crop is harvested; but in agrarian terms this group also is unenterprising. It is rarely in a position to consider any deviation from the narrow pattern of ploughing the land, planting the seed of a staple crop, weeding it once and reaping a harvest. While these younger land-holders may be more aware of such innovatory risks as the purchase and application of fertiliser, treated seed or insecticide, of improved farming practices or new crops, they are usually unable to invest money, time or effort in them.

The third group of land-holders constitute relict, highly dependent households, and are mostly old widows. These old women must rely upon resources external to their households to a greater degree than young migrants, and like them must often go to great lengths to establish social networks which will permit the cultivation of their land. Being more deprived than any other group in the village community, these land-holders also are unlikely to deviate from the bare minimum, standard agricultural practice necessary to raise a staple crop from the soil; in addition, as old people, they are less open to innovatory suggestions.

Finally a small group of cultivators may be identified as more likely to display enterprise or innovatory initiative in their farming. They tend to be middle-aged men who have completed their period as migrants and who may in fact have spent less of their lives abroad than most; in exceptional cases, such farmers have never taken a migrant contract. These men often hold only one field, or even none at all; they are of above average intelligence but rarely well educated, since those with a good school qualification are likely to find other employment. They enjoy farming and practise it successfully, taking more care in their agricultural operations than is usually apparent. It is this small group of farmers which is most likely to make the effort to transport ash to scatter on the fields, or to obtain a better type of seed; to listen most attentively to the recommendations of outside advisers and perhaps, after due consideration, attempt to implement some of them. In particular they are likely to be known as active and successful sharecroppers; they may engage in a number of these contracts each season in order to supplement their own land holdings and because they are prepared to farm carefully and enjoy the task. The actual characteristics of this small but significant class of cultivators vary widely from one community to the next, as by definition in Lesotho conditions such enterprising farmers are highly individualistic men. It is most valuable, however, for external agents attempting to influence farming to identify these few persons in each community.

Ha Khoeli: an illustration

This chapter will be concluded with an examination of the

community of Ha Khoeli, in which the most intensive research for this study was carried out. The random sample of land-holders selected for special attention, and the links recorded between them, afford some illustration of the social networks which sustain Sesotho agriculture and the types of household which engage in it. Fig. 5.1 shows the farming links between households reported by this random sample of land-holders in Ha Khoeli for the summer 1976-7 season.[1] Two types of household are shown: the 30 in the random sample; and those outside the sample with which they reported links. Households are positioned on the diagram as they are located in the various sub-villages of Ha Khoeli. Distances shown thus give some indication of the distances between parties to these agreements. Some partner households live outside Ha Khoeli in other villages; these are depicted at corners of the diagram and no inference may be made about their relative locations, although their distances from Ha Khoeli are indicated. Three types of link are indicated (see key): sharecropping arrangements; hire arrangements; and all other liaisons. The diagram shows the links created for each field held by the sample group, and indicates which crops were planted in the summer 1976-7 season. It is thus possible to discern which household holds the land in any of the links shown, and which is contributing to its cultivation. A second classification of each link is indicated: whether it is between parties reported to be kin, or not. In either case the contributions of each party to the arrangement are shown; where partners were reported to be kin the nature of their relationship is also described.

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[1] The total number of households in Ha Khoeli in 1977 was 122 and the total population 519 (see Appendix I). Figure 5.1 is in the pocket at the back of the volume.

Not every detail relating to each arrangement made by the 30 households could be recorded. But the diagram provides a substantial illustration of part of the network sustaining the agriculture of a real community, and many interesting observations may be made in the light of the discussion of these networks offered above. With its key the diagram is fairly self-explanatory, so only a few comments are made here. 12 households among the 30 are seen to be involved in sharecropping contracts: some with each other and some outside the group of 30. Six have made hiring operations for certain agricultural operations on their land. Three households or ten per cent of the group (Nos. 8, 15, 23) farm their land independently: it is to be doubted, however, whether unreported friendly connections do not in fact exist between these households and others, particularly with regard to weeding. No household in the group stands as a discrete unit: each either depends upon external links to support its farming, or is party to arrangements for the cultivation of other people's land. Many households have both types of link.

The respective numbers of kin links and non-kin links have not been enumerated. As was argued earlier in this chapter, kinship guides the direction of only a small minority of supportive farming ties; in most cases, friendship is a more relevant criterion. Certain instances of these kinship-inspired links may be noted, however. One is between Josefa (household 3) and his son Mohale, who does most of the work in ploughing the former's fields. If Mohale were among the sample group, the diagram would show that he in turn uses his father's animals and plough to work his own land. 'MaLipuo (No.4) may be seen to

have had one of her fields worked by her son Mosoeu (No. 29). Instances are also apparent, however, where parents and children are not so close. No connection is shown between Tlhoriso (No. 26) and Motanyane (No.1), who is his son. The wife of the absent Mahloko (No.17) has to hire her father-in-law Teboho to help with the ploughing, where a less mercenary connection might be expected.

An attempt has been made to classify each of the households in the sample with reference to the four categories of cultivator which were put forward earlier in this chapter. Symbols on the diagram indicate the group to which each household has been assigned. In total, 13 were placed in the first group of relatively independent, unenterprising land-holders. Eight households are headed by active migrant labourers. Seven fall into the derelict, highly dependent category. Two may be classed as innovative, entrepreneurial farmers. Various aspects of this classification and characteristics of the households involved will now be discussed.

The relationship between households 4, 18 and 29 - all of which were placed in the first category - calls for comment. Motaba (No.18) and Mosoeu (No.29) are brothers, each of whom constitutes a one-member household. The former's wife died and the latter's deserted him; the former's children live with his mother 'MaLipuo (No.4), while the latter has no children. Each son has a separate household, but Motaba in fact prefers to live at his mother's place. 'MaLipuo, an old widow, retains a relatively independent household, having her sons and grandchildren resident or close by, holding three fields and

owning several cattle (which are managed by her sons). The two single men are also relatively independent vis-a-vis the rest of the community, being able to depend upon close family ties. 'MaMoeketsi (No.13) is another old widow who may be classed in this more vigorous category, because of the presence of her daughter-in-law, whose husband, 'MaMoeketsi's son, very rarely returns to visit them. Although they are poor, this young woman's participation in 'MaMoeketsi's household preserves it from dereliction. This household also offers an example of the use of herding labour as a negotiable factor in farming arrangements. 'MaKhabana (No.20) is a widow heading an independent household, with many children and grandchildren (including some adult sons) living with her, and a small herd of sheep and goats. She is thus able to cultivate three fields, exchanging the labour of her sons for the use of cattle and a plough.

Among the group of households headed by active migrants, Mokheseng (No.16) is an example of the absentee cultivator. He has no wife or children and comes home only to rest and spend his earnings. The cultivation of his two fields is entrusted entirely to Thabo, with whom he sharecrops. In some seasons Mokheseng makes no contribution other than his land; in others, he may be present to help at some stage, as with weeding in 1976-7. All the other migrants in the group have wives to supervise their lands in their absence, although in two cases (Nos. 1, 19) these young women are themselves absent much of the time and leave these duties to their parents-in-law. Although no formal connection is shown between Motanyane (no.1) and Tlhoriso (No.26), the latter in fact expends much energy in

exhorting his son's wife to run her household properly.

Of the group of highly dependent households, a majority are headed by old widows. 'MaMosoeu (No.30) is a second example of the absentee cultivator, preferring to spend most of the year at her married daughter's place in the mountains. She sharecrops her fields with two separate partners. 'MaThabo (No. 11) is only middle-aged, but since her husband's death has lived alone, visited occasionally by her daughter who lives in Maseru and provides small remittances to help support her. She must sharecrop her land with Tsotleho, which in fact also involves liaison with the household of 'Makhathatso, with whose son Tsotleho always ploughs. The old woman 'MaNtsitseng (No. 2) has two sons living nearby in the village to help her; yet her household is classed in this derelict category as these men only give her a minimum of assistance. Only one granddaughter, who also goes to school, lives with her and helps support her from day to day, weeding her field in the summer. 'Motsi, a man of about 60, heads a household which must also be placed in this group. He lives with his wife in some poverty and alleges that his children have deserted him and refuse to help him. Slightly deformed and with a speech impediment, he lives by hiring himself out for any odd jobs other villagers need done. Lacking any cattle or implements, he sharecrops his small holdings of land.

Lastly, two independent and enterprising farmers may be identified within this sample. Lebohang,(No.15) aged 40, was a mine 'boss-boy' but now stays at home farming and engaging in profitable tailoring. With a sewing machine, he and his wife make garments for sale and take in repairs. He owns enough

cattle to plough independently, and possesses a plough and a planter. In 1976-7 he engaged in two sharecropping contracts. Less prosperous and businesslike, but one of the most enthusiastic and careful farmers encountered in Ha Khoeli, Mosala (No. 23) may be seen from the diagram to be self-sufficient and engaged in sharecropping and other arrangements with a number of households. He is about 35 years old and also has a small additional income from his occasional work as a thatcher. It is important in attempting to influence the course of a Lesotho community's agriculture to identify such leading participants, whose commitment and greater skill are clearly a most valuable resource. Another example suggests itself from this illustration of the network in Ha Khoeli, although it falls outside the actual sample. In Tebellong , Thabo (an older man of about 60) may be seen to be engaged in the farming operations of numerous other households. He is a popular and responsible partner and forms one of the core group who may be described as the true farmers of the community.

Conclusion

This case material from Ha Khoeli has served as an extended conclusion to this chapter by illustrating the universality and importance in real life of the system of social relationships through which Basotho farm - a factor whose significance emerged clearly from the analysis of the system's separate elements earlier in the chapter. The dependence of almost all Basotho households upon these social networks and mechanisms in sustaining their agricultural production has been indicated. In view of this, a further important conclusion from this chapter must be that it is necessary to analyse and understand these relationships - in addition to studying technical methods - in any investigation

of Sesotho farming. Insufficient attention has been devoted to this in the past - an omission which this study seeks in part to remedy.

A further reason for making an investigation of the social networks in farming germane to the study of the agricultural sector in Lesotho has emerged from this chapter. An essential theme of the present work is the need to reassess the condition and prospects of Sesotho farming in relation to the nation's economic position and the real extent of the people's involvement in, and dependence upon, agriculture as a way of life. Farming continues to make a minor but essential contribution to the subsistence of most Basotho households. Few households have the range of resources required to farm adequately or profitably. Policy-makers need to devote more attention to the problems this causes and the remedies rural people have devised, if they wish to continue subsidising and reinforcing agriculture's subsistence role in the country. Some interest in the institution of sharecropping is already apparent in government circles, and the value of identifying those enthusiastic farmers who form nodal points in the village agricultural networks has been indicated in this chapter. It is not clear at this stage how best external intervention can promote the smooth functioning of the existing redistributive mechanisms for the factors of agricultural production, but it is apparent from the preliminary examination of these mechanisms offered here that they are crucial in the conduct of Sesotho farming.

The economic, technical and social conditions of agriculture in Lesotho have now been described. Against this background

- which in the past has rarely received adequate consideration - an attempt to analyse the prospects of change through rural development may now be begun. In trying to understand the reaction of the Mosotho to the prospect of agrarian change, his world-view must first be considered at the broadest level; in the light of this a proper appreciation of his attitude to farming may be gained. Examples of actual reactions to development initiatives will then be considered in Chapter seven.

CHAPTER SIX

ATTITUDES TO LIVING AND FARMING

Introduction

It is assumed in this study that a proper understanding of Sesotho farming must be grounded in an appreciation of the full spectrum of culture and economy. The foreigner seeking to achieve this must move as close as possible to Sesotho perceptions of life and compare them with his own. He may also relate them to the structured theoretical concepts evolved by his society in the course of comparative study of other cultures. An attempt to locate the economy of the Basotho has already been made in Chapter two with reference to regional economic history and the concept of a peasantry. In Chapter three an effort was made to appreciate the Sesotho relationship between man and landscape, which necessitated reference to the regional political economy and suggested many broader questions about the Basotho's perception of life and its problems.

A brief and necessarily inadequate attempt will now be made to discuss the Sesotho world-view at this most general level. The discussion will then return to a more specific area with comments upon the place of agriculture in this broad spectrum of attitudes and perceptions. Finally, specific agricultural questions will be raised: what rural Basotho consider their primary agricultural problems and requirements to be; what changes they desire in this field; and what role they expect a specific development agency to play.

Frequent reference is made in this chapter to the findings of a questionnaire survey carried out in the area of the Thaba Bosiu Rural Development Project in April-May, 1977. (A more detailed discussion of survey methodology, an English translation of the questionnaire, and tables of some of the results, are presented in Appendix III.) The questionnaire was administered in approximately two per cent of the land-holding households in the Project area: 335 questionnaires were completed in 84 randomly selected villages. (This group of villages was selected separately from that chosen for the technical survey described in Chapter four, although some villages were selected twice.) Enumerators were instructed to administer the questionnaire only to heads of households or their spouses. A reflection of the national de facto sex ratio is given by the fact that 69 per cent of the respondents were female, while only 31 per cent were male.

Sentence completions: preliminary analysis

Methodology The principal device adopted for structured investigation of Sesotho attitudes at the most general level was the 'sentence introducer', sets of which were posed to the respondent for him to complete in any way he wished (questions 17-52, Appendix III)[1]. The following sentence introducers were put to the respondents twice, as shown in Appendix III. The first set were to be completed entirely as the respondent pleased; in the second set, he was asked to make sentences referring to agriculture or livestock.

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[1] This method, and a computer program for processing the results, were developed and used successfully in Liberia and Lesotho by Dr John Gay. His inspiration and assistance were invaluable in my own work, and I acknowledge with gratitude my deep debt to him.

In the mountains...
One day I will...
I remember that...
In the Republic...
In the lowlands of Lesotho...
I know that...
I am sorry that...
Lesotho...
I am unable to...
I believe that...
I hope that...
They have told me that...
I want to...
In the old times...
Women...
I am able to...
In the future...
The Basotho...

Discussion here relates only to the first set of sentences (on completely general topics). In order to reduce the 6,030 sentences generated by this first set of introducers to a comprehensible body of data, the completed sentences were analysed and grouped into 99 subjectively defined categories of response. Each of these categories was designed as an individual statement, intended to represent as accurately as possible a group of attitudes or factual statements which emerged as responses to the sentence introducers. As such they were not limited to individual sentence introducers; rather, each completed sentence, after these 99 categories had been defined, was assigned to the response category which most nearly represented it. Alternatively, a response which did not fit any single category well could be assigned to two or three categories which, in sum, approximated the sentiments

expressed by the respondent in his sentence.[1] It was then possible to tabulate the response categories and show how often they were generated in Basotho's responses to specific sentence introducers. Tables relating to 15 of the 18 sentence introducers are presented below; responses to the other three are tabulated in Appendix III.

The choice and design of the sentence introducers used in this survey were guided by two considerations. The first was to follow on from work which had already produced interesting results in another part of the country - Dr Gay's survey in the area of the Senqu River Project - and to provide some data for possible comparison with that material. Some of Gay's introducers were therefore adopted directly, although not indiscriminately. The selection made was controlled by the need to limit the total number of introducers and by suggestions - from intuition and from Gay's experience-as to which might function less successfully in eliciting attitudes. The second consideration guiding the design of this set of 18 introducers comprised various interests supplementary to the task of eliciting broad attitudes from 'general' introducers. An introducer relating specifically to women was therefore included, as were two 'geographical' ones concerning the mountains and the lowlands of Lesotho, and one referring to the old times. In addition, three introducers specifically intended to elicit broad cultural and economic appraisals -

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[1] For the sake of uniformity, these response categories were given a slightly stylised expression in the first person plural, present tense whenever an activity or characteristic of the Basotho was mentioned. Thus, "We are sick" also represents "I am sick" or "My child is sick", etc; and "We are strong" represents "I was strong".

"In the Republic...", "Lesotho...", and "The Basotho..." - were included. A composite body of introducers was thus developed which incorporated - within the logistic limits of the interview - a set of basic promptings for the most general statements, directly comparable with Dr Gay's material, and a group of enquiries more specifically related to the intentions of this study.

Following Dr Gay's pattern of analysis, the ten response categories mentioned most frequently in sentences generated by Basotho are tabulated below for 15 of the 18 introducers. These introducers are all of a general nature, relating with one exception ("in the old times...") to the respondent's everyday life and concerns. "I remember that..." was included in the original set of 18 introducers before it became apparent that the Sesotho translation, ke hopola hore..., refers as much to the future as to the past, a more accurate rendering being "I have it in mind that..." It can therefore be considered as another very general introducer. "In the lowlands of Lesotho..." gave more 'general' results than its geographical terminology suggested, most respondents taking it to mean simply "Here where we live..."

Most frequent responses A preliminary examination may now be made of the principal attitudes and concerns revealed by the 15 'general' sentence introducers. The percentage figures in each table refer to the percentage of respondents mentioning given categories in their sentence completions for the given introducer; as up to three categories could be allocated to represent any single completed sentence, these

percentages - together with the unlisted categories and the large proportion of zeroes where less than three categories were used to represent sentences - sum to 300 for each introducer.

Table 6.1 One day I will...

	%
We travel	46.3
We go visiting	13.4
We do domestic tasks	7.8
We weed, harvest, thresh, winnow	5.4
We farm (general)	4.8
We build, improve	4.5
We plough and plant	3.9
We can work	3.3
We will find work	3.0
We grow staple crops	3.0

Table 6.2 I remember that...

	%
We travel	20.0
We plough and plant	3.9
We farm (general)	8.4
We do domestic tasks	7.2
We have relatives	5.1
We go visiting	4.2
We grow staple crops	3.9
We weed, harvest, thresh, winnow	3.6
We build, improve	3.3
We own and herd stock	3.0

Table 6.3 In the lowlands of Lesotho...

	%
Things are nice	16.1
We farm (general)	10.4
We are at home	8.1
We grow staple crops	7.2
Life is hard	6.3
We have many tasks	4.5
Farming is necessary	4.5
There is hunger	3.6
We do domestic tasks	3.3
Farming is improving	3.0

Table 6.4 I know that...

	%
We travel	6.6
Harvest will be good	5.1
We do domestic tasks	4.8
We plough and plant	4.5
Farming is necessary	3.9
Life is hard	3.9
We will get rich	3.9
We can work	3.9
We weed, harvest, thresh, winnow	3.6
Things are nice	3.6

Table 6.5 I am sorry that.....

	%
We are poor	18.2
We farm poorly	12.8
There is hunger	10.7
We lack strength	7.8
Life is hard	6.0
We are sick	5.1
We are ignorant	4.8
We lack material comforts	4.3
We cannot work	3.6
We have relatives	3.0

Table 6.6 Lesotho...

	%
Lesotho is ours	16.4
Lesotho is good	14.9
Things are nice	14.3
We are at home	10.4
There is peace	9.9
Life is hard	8.1
We govern ourselves	4.5
There is hunger	3.3
Farming is necessary	3.0
We farm (general)	2.7

Table 6.7 I am unable to...

	%
We lack strength	25.4
We cannot work	18.8
We are poor	9.9
We are sick	9.6
We are unable to farm	7.8
We are ignorant	6.3
We farm poorly	6.0
Life is hard	4.5
We lack inputs	4.2
We travel	3.0

Table 6.8 I believe that...

	%
We believe in God	7.5
We will get strong	7.5
We travel	6.0
We need help, advice	5.1
God helps us	5.1
We will make progress	4.5
We lack strength	4.2
We hope for help	4.2
Government helps us	3.9
We want to work	3.6

Table 6.9 I hope that...

	%
We hope for help	8.7
We travel	8.4
We will get strong	7.5
We will make progress	7.2
God helps us	6.9
Government helps us	6.6
We need help, advice	6.0
Harvest will be good	5.1
We believe in God	3.9
We ask extension agent's advice	3.0

Table 6.10 They have told me that...

	%
Government helps us	6.6
We hope for help	3.6
Farming brings prosperity	3.6
We travel	3.3
We can help ourselves	3.0
We farm (general)	2.7
We have relatives	2.7
Fertiliser is good	2.4
Farming is necessary	2.4
We can work	2.4

Table 6.11 I want to...

	%
We travel	13.1
We do domestic tasks	9.9
We want to work	8.1
We need help, advice	5.4
We want to live	4.5
We plough and plant	4.2
We grow staple crops	3.6
We buy non-farm goods	3.3
We build, improve	3.3
We buy tools, inputs	3.3

Table 6.12 In the old times...

	%
We used to live well	35.8
Life was hard	24.5
We farm poorly	5.4
We are sick	4.8
We are ignorant	4.8
We travel	4.5
There is hunger	3.6
We can work	3.0
We are strong	2.4
We farm well	2.4

Table 6.13 I am able to...

	%
We do domestic tasks	11.0
We can work	9.9
We can aid ourselves	9.6
We travel	7.2
We have resources	6.6
We talk and discuss	4.2
We work well	4.2
We study and learn	3.9
We need help, advice	3.3
We farm	3.0

Table 6.14 In the future...

	%
We travel	13.4
We will make progress	9.0
We will get rich	6.0
We plough and plant	6.0
We build, improve	5.1
We weed, harvest, thresh, winnow	5.1
We do domestic tasks	5.1
We get old and die	4.5
We can aid ourselves	3.6
We will get strong	3.6

Table 6.15 The Basotho...

	%
There is peace	11.3
We enjoy and entertain	8.7
Life is hard	8.4
We are bad, quarrel	8.4
We cooperate, agree	7.5
We love others	6.3
We work well	6.0
We are progressive	6.0
We are strong	5.4
We are wise	5.1

A brief perusal of these tables raises many questions and ideas, and provides a valuable introduction to the nature of the material under analysis, which is the justification for presenting such a large body of data in this uninterrupted form. It is also immediately evident, however, that the extraction of significant trends from the completed sentences is a complex task. In an effort to illuminate Sesotho culture and economy with this data, three themes may initially be identified: daily activities (including farming), hardship and happiness. This requires a rough distinction between the day-to-day, personal details of life, and the more general, philosophical aspects Basotho speak about. Some sentences tend to generate responses of the former type, notably "One day I will...", "I remember (I have it in mind) that...", "In the lowlands of Lesotho...". Others usually produced the latter type of sentence, eg. "The Basotho...", "I believe...", "Lesotho...". Some, eg. "I am sorry that...", tend to produce statements of hardship or distress; others, eg. "I hope that..." or "I am able to..." are likely vehicles for optimism; and others, eg. "I want

to..." have less easily predicted outcomes. These distinctions will guide the search for meaning in the 'day-to-day' and the 'philosophical' spheres.

Everyday activities Looking firstly at aspects of the day-to-day, the predominance of the notion of travel is immediately apparent. It is the response category most frequently featured in sentences generated by five introducers ("One day I will...", "I remember that...", "I know that...", "I want to...", "In the future...") and occurs in the ten most frequent responses to six of the remaining ten introducers under consideration here. It has already been pointed out in the discussion of vernacular geography (Chapter three) that the Basotho are a mobile people, and the sentences they completed support this statement amply. Measured over weeks or months, a significant proportion of the time of the Mosotho man or woman at home is spent in travel; and the migrant labourer must journey much greater distances to the place where he stays for the duration of his contract.

An even more significant question is raised, however, by examination of the nature of the introducers, listed above, where travelling is first on the list of responses. Given that "I remember that..." in Sesotho often means "I remind myself that..." or "I have it in mind that...", it may be seen that four or five of the introducers basically generate statements of intent and desire; only "I know that... (we travel)" can be described as a description of everyday fact. It must be concluded that people have a strong desire to travel which finds

frequent expression but may not be perceived as being adequately satisfied. Many of the reasons for this desire have been mentioned above, but the fact that travel should so frequently find abstract expression, divorced from its various purposes, leads to other questions which will be considered further below.

The other everyday concerns revealed by the sentence introducers will now be considered, examining first the introducers most likely to generate sentences indicating these concerns: "One day I will...", "I remember that (I have it in mind that)...", "In the lowlands of Lesotho...", "They have told me that...", "I am able to...". One activity which is a corollary to travel - "We go visiting" - is mentioned twice in these lists. "We do domestic tasks" occurs in each of the five with the exception of "They have told me that...", which is less immediately factual than the other four introducers. The high priority of domestic concerns reflects in part the sex ratio of the respondent populations, which is of course itself an index of the nature of village life. A separately identified domestic activity which may tentatively be identified as a masculine preoccupation is "We build, improve", relating to the construction of houses and kraals and physical alterations and repairs such as thatching. (The female activity of plastering walls, which is regularly undertaken in most households, was classed however as a "domestic task".) The owning and herding of livestock as a separately identified concern occurs only once in these five lists.

The remainder of the activities directly mentioned in

these five 'day-to-day' lists are predominantly agricultural. The general statement "We farm" and the more detailed descriptions "We grow staple crops", "We plough and plant", and "We weed, harvest, thresh, winnow", occur frequently. The significance of farming as a daily concern in the village is evident from the most perfunctory examination of these tables. Indeed, two introducers - "In the lowlands of Lesotho...", which tends to generate the broadest description of activities in village life, and "They have told me that..." - generate many sentences to the effect that "Farming is necessary". Reference to forms of labour other than the domestic or the agricultural is less frequent, is less specific and tends to the tentative, arguably, even the plaintive, in the two response categories "We can work" and "We will find work". The prospect of employment, the sentences indicate, is less immediate in the village perspective.

Everyday social concerns and activities are also mentioned in many responses to these five introducers. "We have relatives" occurs frequently; this was often separated in processing from other concerns of a respondent's sentence, but the importance of this social bond in daily village life is underlined by the frequent appearance of the response in these lists. "We talk and discuss" appears only once, significantly under "I am able to...": it was often separated out in processing from concepts of potential for action or self-help, indicating that such social activity may often be for a distinct purpose.

Hardship Predominant features of daily activity are thus

revealed by five of the sentence introducers; reference to such activity in responses to other introducers may be seen in the tables to follow a similar pattern. Turning now to more general statements of attitudes and conditions, attention will first be given to the group of such responses that is most readily distinguished: those relating to hardship. Two sentence introducers are directly related to such concerns: "I am sorry that..." and "I am unable to...". The catalogue of distress listed under the first of these speaks for itself, and is given slightly more specific expression in the second list. Poverty, hunger, ignorance and illness are frequently lamented, as are the inability to work or to farm properly and the harshness of life without material comforts. Most interesting, perhaps, is the significant occurrence of a completely general complaint: "We lack strength", which may be translated into such common Sesotho expressions as ha ke na matla (I have no strength,power) and ke hloka bophelo, ha ke na bophelo (I lack life, I have no life). These expressions are connected to the slightly more specific kea kula (I am sick), although the latter may refer to an undefined or general condition of poor health: a lack of energy or a feeling of age. A search of the other lists for expressions of hardship reveals that 'lack of strength' occurs frequently. Many people feel a general inability to act, to move forward, to live as they might otherwise be able to do. This leads to the general statement that "Life is hard", which occurs in six of the lists under consideration.

Happiness and optimism A search is next made for

expressions of opposite sentiments: optimism and hope. Certain sentence introducers in particular may be seen to have led predominantly to such sanguine statements: "I believe that...", "I hope that...", " In the future..." and "They have told me that...". Mention of this last introducer affords an opportunity to discuss a significant aspect of the administration of this attitude questionnaire, whose effect is most clearly seen in the list below that heading. Villagers knew that the enumerators who came to interview them represented the Ministry of Agriculture, and most of them knew that they were staff of a specific rural development project. More generally, random attendance at interviews and examination of the completed set of questionnaires revealed that the enumerators as agents of the project were generally identified as representatives of a commonly perceived syndrome: of development, change, innovation, progressive agriculture, the improvement of rural facilities, the use of fertiliser, the value of farming, to name a few of its components. This, it may reasonably be argued, led to some dislocation of the concerns expressed in the completed sentences from the 'real' subjects the Mosotho thought about the day before the enumerator's visit to the ones he may imagine the enumerator (and the white man for whom the latter is probably writing) deem appropriate. For instance, the enumerator asks the villager to complete a sentence beginning, "They have told me that...". It is not surprising if the latter scans his memory for an appropriate message relating to improved farming, concerning perhaps the value of fertiliser or the fact that people should organise themselves for self-help. It should be stressed that for the most part the general nature and wording

of the sentence introducers did not prompt this type of reaction, especially as enumerators urged respondents to speak of any subject at all, offering ridiculous examples such as "One day I will buy a railway train" to make their point. Distortions of the type referred to finds expression in two areas of mild exaggeration: relating firstly to the extent of respondents' concern with farming overall; and secondly to their optimism about rural development and the prospects for organisation and self-help.

With this minor caveat in mind an examination of the expressions of optimism and the good life generated by the sentence introducers may now proceed. Consideration of such factors may assist a comparative evaluation of the two attitudes immediately revealed by the introducers under special examination here: a belief in God and the government as sources of help for progress and prosperity. Apart from the unavoidable fact of old age and death, attitudes to the future seem sanguine. A common perception of current conditions may be identified in these four lists - and in the lists generated by other sentence introducers - which is separate from the expressions of hardship already discussed. This identifies contemporary life as a baseline from which progress and improvement are to be achieved. Germane to this idea, however, are two concepts which arguably illustrate Basotho villagers' rapid and accurate assessment of where the rural development machine wishes to place them. Sentences refer often to the necessity of help, either generally ("We need help, advice", "We hope for help") or from specific sources (God, the government and the extension

agent); at the same time, respondents frequently mention the concept of self-help ("We can aid ourselves").

In addition to more general expressions of optimism such as "We will make progress", a separate strand of optimism of a more traditional or individualistic nature may be identified. This relates more to the expectation of individual advancement, expressed in such responses as "We will get strong" and "We will get rich". Processing of the questionnaires indicated that the sentence context in which these response categories most frequently occurred implied no specific reasons for optimism or explanations of how this change was to come about. The hopeful response that "The harvest will be good" may also be mentioned in this connection. It may be observed only that in the midst of more progressive, and for reasons mentioned above, sometimes less honest comments about development and future improvement in the quality of life - and in the midst of many statements of hardship and poverty - there persists a strand of opinion which believes that the individual can go forward and prosper.

Basotho and their country An attempt must now be made to stand back and derive a broad view of Sesotho life and values as expressed in these sentences. This will be done in several stages. Firstly, the specific sentence introducers which prompted the most general comments on the Basotho and life in their country are examined. All the attitudes to life extracted from the sentences so far are then summarised with reference to the most general statements. A hierarchical clustering of attitudes is then derived which assists the

analysis and places in context three questions not yet discussed: perceptions of the past, of the role of women, and of employment in South Africa. An examination of specific feelings about agriculture may then be introduced by further reference to what the sentences reveal about the place of farming and self-help. As the discussion is developed from the specific sentences generated by the introducers in the questionnaire, more general comments arising from field experience will also be offered, and an attempt will be made to assess Sesotho life and culture in the light of studies of peasant societies elsewhere.

The ten categories of response most often generated by the sentence introducer "Lesotho..." reveal three of the four principal clusters of attitudes which describe the Mosotho's view of his life and surroundings. The first set of attitudes reflects pride in the country and in Basotho nationality, and satisfaction at the political independence the people enjoy: "Lesotho is ours", "Lesotho is good", "We govern ourselves". Linked to this, and less clearly represented here than in the responses to "Basotho..." discussed below, is the notion of Basotho virtue, of social harmony and responsibility; this is reflected in the statement that "There is peace" and also in the assertions of independence and self-government to which reference has already been made. Taken together, these two clusters of attitudes express a great air of contentment in the respondents' collective virtue, uprightness and national pride, which finds less lofty expression in the simple assertion that "Things are nice". But interspersed with

these happy statements may be found substantial indications of the severe difficulties of living in Lesotho: "Life is hard", "There is hunger". In addition to these three dominant sets of ideas, a fundamental material element of life in Lesotho is revealed in the last two responses on the list: "Farming is necessary" and "We farm (general)".

The introducer "Lesotho..." thus provides the crudest of summaries which may be developed by reference to villagers' direct attitudes to themselves as a people in response to the final introducer, "Basotho...". Here the catalogue of virtue and prowess is longer and more self-satisfied: "There is peace", "We cooperate, agree", "We love others", "We work well", "We are progressive", "We are strong", "We are wise" - and the assertion that "Things are nice" is given slightly different expression in the prominent reference to enjoyment and entertainment. Almost equally prominent, however, are the third and fourth elements of the overall picture. "Life is hard" is again a preoccupation, but so is a surprising element of the Basotho's reflected image: "We are bad, quarrel". Other personal defects of sickness, lack of strength and ignorance are referred to many times in the responses to various sentence introducers; but these are the consequences of material hardship. When Basotho are asked to make sentences referring specifically to themselves, a significant element of moral self-criticism emerges.

An integrated view: four elements Responses to these two introducers produce a microcosm of Sesotho world-view

incorporating four elements set up in apparently paradoxical pairs. Life is good, yet it is hard; the Basotho are fine people, yet they are quarrelsome and bad. Some initial comments may be offered on this picture before it is widened to incorporate material from other sentences. Consideration must first be given to the immediate objection to a treatment of this kind: that the two trends of attitude - the bright and the gloomy - do not form an integrated whole but represent two distinct groups in the respondent population. During processing of the completed sentences, however, it became clear that few respondents provided complete sets of optimistic or pessimistic statements; sets of sentences generally contained some of each type. On some occasions, indeed, it was necessary to allocate the sense of a single sentence to two opposing response categories. Further evidence of the thorough integration of these conflicting attitudes is given in the discussion of Figure 6.1 below.

Happiness and hardship The co-existence of happiness and hardship may now be considered in the light of this conclusion. The assertion that ho monate (things are nice) is a very common one in Lesotho. A period of residence with Basotho and of daily conversation with them provides many opportunities to discuss all aspects of life. In these discussions Sesotho assertions of life's pleasures are, overall, more frequent and often more insistent than descriptions of its hardships, although as these completed sentences indicate the latter are a serious concern. Compared with the degradation and subservience of life in South Africa, the freedom and dignity of Sesotho village life is a pleasing thing

indeed;[1] further, Lesotho's relationship with her neighbour means that for the male young to middle age group the village is a place of relaxation and enjoyment, where one can bask in a little glory after one's achievements and spend some of the money one has earned. It is also a place where men and women can be happy together. Some aspects of village life have already been described in Chapter three; the importance of beer drinking was evident in that description. There are feasts and celebrations, singing and dancing in Lesotho villages, particularly on weekends. Two Basotho friends who came on weekend interviewing visits to certain households in Ha Khoeli remarked that life was indeed nice there: a party always seemed to be in progress. Indeed, it was sometimes hard to find a respondent on one's list sober enough to give a useful interview on a weekend.

The delights of village life must not be exaggerated: yet the Basotho have a clear capacity for enjoying themselves whenever possible. However, it is argued that the nature and frequent articulation of these pleasures (as indicated in the completed sentences) spring directly from the perceived hardship of life. On a superficial level, it may be argued that the assertion to the outsider (whether a white guest in the household or a Mosotho enumerator representing the new forces of rural development) that "things are nice" derives its insistence and frequency from the knowledge that things are not really so nice all that often. More fundamentally, it would

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[1] cf. Agency for Industrial Mission, 1976, 12-13.

seem that Sesotho resourcefulness in finding life pleasant so frequently - and indeed the whole structure of a close, supportive society that can make village life appear so warm - are in a sense devices whereby the hardship of material and social deprivation can be made tolerable. Like any philosophy of life, such a strategy for the survival of a society must be frequently articulated if it is to function. This, it is suggested, is why the general statements that life is good and that life is hard should occur so often in apparent opposition.

In a discussion of this type it is only possible to speculate and to offer subjective comments. Yet this preliminary examination of happiness and hardship indicates the primary feature of Sesotho life that will emerge more clearly and receive further consideration as the analysis proceeds. This is the integration of trends, of the good and the bad, of optimism and gloom. Life everywhere includes such opposites of emotion and experience, yet the completed sentences indicate that the observation is not the truism that it may appear. The hardships Basotho refer to are severe - infant mortality, debilitating disease, hunger and abject living conditions - and although Africans elsewhere endure much greater deprivation, Basotho's perception of these difficulties is made more acute by their knowledge and experience of European culture and living conditions. On the other hand, the statements of pride, pleasure and contentment are far more direct and assertive than those current among members of many other societies. This integration of extremes will receive further consideration below; an additional illustration of it is afforded, however,

by the second pair of opposing elements to emerge from this first, crudest approximation of the Sesotho world-view. These relate to the Basotho's view of themselves.

Virtue and imperfections Many completed sentences were to the effect that the Basotho are fine, virtuous, sympathetic people. Yet a significant and opposite cluster of attitudes, to the effect that they are evil and quarrelsome, is also prominent. Each aspect may again be considered before an attempt to resolve the apparent contradiction into an integrated exposition of Sesotho attitudes. The many glowing references to the virtue of the Basotho may, it is suggested, be explained in a manner analogous to the analysis offered of the many sentences referring to the good life. At every level of Lesotho society there is an easily identified pride and self-respect relating to the dignity and independence of the Basotho nation: its historic victories in battle; the greatness of its kings and the continuing importance of its traditional institutions in modern government; its cordial relations with the English and their empire, upon which many older Basotho wax eloquent; and the intelligence, strength, tolerance, vigour and skill displayed by its people at work and in government. Coupled with ample reference to the good life of the sort already discussed ("We enjoy and entertain"), most of the sentences generated by the introducer "The Basotho..." express this pride and self-satisfaction: "There is peace", "We cooperate, agree", "We love others", "We work well", "We are progressive", "We are strong", "We are wise".

Again, however, it is argued that such statements, based as they are upon an amply-justified satisfaction with Basotho's achievements and freedom from political degradation, have an almost defiant ring about them. As will be argued in more detail below, an integral part of Sesotho culture relates to its southern African context, and in so doing must inevitably arouse feelings of frustration and inferiority. Basotho are fully aware of their political and economic history and of the steady process of deprivation to which they have been subjected (see Chapter two); and as participants in the southern African economy as labourers and consumers of goods they understand the structure of power of which they are part. They are fortunate indeed in being able to take comfort from their political independence and their distinguished political and military history. It is argued that in order for them to sustain the material and cultural degradation to which they are subjected (for reasons of which they are well aware) it is necessary for the Basotho to embellish their tradition of national dignity and pride and to exaggerate their virtues and accomplishments.

It is harder to explain the common statements of self-deprecation which make up the fourth element of this first crude synthesis of attitudes. It is an element which finds frequent expression in day-to-day conversation, particularly in derogatory comments relating to the root -sotho, which pertains to the essence of life as a Mosotho. A brief analysis of some of the usage and associations relating to this fundamental root illustrates the nature of the culture this analysis seeks to understand. Sesotho, as has been explained (Chapter three), means 'in the way or manner of the Basotho'. We thus derive

the Sesotho language, and may speak of Sesotho soil science or Sesotho perceptions. Furthermore, the root in this adverbial form relates to traditional mores and culture. "Sesotho se tjena" (the Sesotho way is thus), an informant may begin as he explains a custom or social institution to an outsider. As such, the root -sotho may often represent the norm to which one aspires. Things are done ka Sesotho (in the Sesotho way), and failure to satisfy the norm, by impoliteness, an improper form of greeting or other infringement of the rules of desirable behaviour, may draw the rebuke "hase Sesotho"(that is not the Sesotho way). The geographical form of the root, Lesotho,as was shown in Chapter three, generally evokes sentiments of affection and pride. To be a Mosotho,moreover, is to fulfil a demanding set of conditions and conform in the manner required by society.

Various root forms refer to types of humanity, either as nations, as practitioners of certain activities or as possessors of certain characteristics. The prefix mo- (plural ba-), however, is reserved only for those roots satisfying two basic criteria: intelligibility and acceptability to Basotho society. Thus the man from Botswana, or the Peli, who can make themselves understood to the Mosotho, are MoTsoana and MoPeli; but the Englishman and the Zulu take the le- prefix (plural ma-) allocated to deviants from the norm (leNyesemane, leZulu). A Mosotho who speaks little may be described as lethola (ho thola, to be silent); a drunkard is letaoa (ho taoa , to be drunk); a madman is lehlanya (ho hlanya, to be mad). Verbal nouns relating to 'ordinary' Basotho take the mo- prefix:

mothusi (the helper), moratuoa (the loved one); but groups of Basotho participating in western culture take a ma- prefix before the borrowed root: new university students may be described as ma-first year, members of a unit in the Ministry of Agriculture ma-Conservation. The word Mosotho thus carries strong normative associations. Basotho who misbehave may be castigated, for example: "ha u ngoanana oa Mosotho" (you are not a Mosotho girl), and it is high flattery to say to a foreigner living with the Basotho: "che, u Mosotho ka 'nete" (indeed, you are a real Mosotho).

Alternatively, however, the root -sotho may take a derogatory meaning. Villagers lamenting unseemly behaviour of some sort may shake their heads and mutter "Basotho..." [1] or commiserate by saying knowingly that "Mosotho ke ntho e sele" [2] (a Mosotho is a different thing). Although the derogatory usages of the root -sotho are not reserved to conversations with Europeans, the essence of such usage appears to be unfavourable cultural comparison. It is not surprising that the root -sotho should commonly be used to describe all that is hopeless and backward, with the root often repeated for emphasis. A custom or practice may be described as Sesotho-sotho (tellingly translated by an urban Mosotho as "deep Sotho"). A 'progressive' villager explained why her neighbours failed to organise credit unions or take initiatives in agriculture by saying "ke Basotho-sotho-sotho mona" (They are real Basotho here); old women uttered cautions about travelling on the road to Ha Khoeli at night with the warning "ke Lesotho mona" (this is Lesotho here).

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1 Not to be confused with the general exclamation "batho..." (people...)

2 -sele, different, is often used in a derogatory sense.

As has been stressed, however, such comments are not reserved solely for European consumption. The resigned assertion that "the Mosotho is something different" is a standard piece of folk wisdom.

How are such statements to be understood? It could be argued that the latter saying in particular is a remarkably healthy feature of a society coherent enough to engage in modest self-criticism. It seems more convincing to suggest that these statements represent feelings of inferiority or subservience to a more powerful culture. As has already been noted, it is unwise to accept on face value statements made by Basotho to representatives (black or white) of the 'development culture' about questions of innovation and change. How sincerely 'deep Sotho' culture is despised in such comments as that made by the progressive villager about her neighbours, is therefore open to question. Most significant, however, is the fact that such cultural comparisons are made and that verbally, at least, they are resolved in such a manner. The central piece of derogatory folk wisdom, that the Mosotho is something again, appears to be a more profound indication of cultural perceptions and of subconscious conclusions reached by the Basotho as they relate to the culture which surrounds and controls them.

What sentence completions reveal Before this analysis of Sesotho world-view is summarised and then carried further, it is important to pause and comment upon the nature of the process of enquiry and communication from which it derives.

What actually takes place when the visiting enumerator sits down with a respondent to pose sentence introducers and record the replies? After initial incomprehension, exclamations and amusement, most respondents settle down to complete all the sentences. With some it is a tedious, protracted process; others rattle off replies without difficulty. Occasionally respondents are completely defeated by one or two introducers.

It is difficult to analyse the process whereby a Mosotho creates an entire statement from the introducer provided, or to suggest how accurate or whole such completions are as a reflection of his actual concerns and perceptions. Such questions lead directly to the most intractable philosophical problems about the interdependence of language and behaviour. How much are the ways the Mosotho thinks and acts determined by the modes of perception and expression afforded by his language, which is itself moulded by his society's cumulative experiences? Whatever the answers to such difficult questions, the importance of these interrelations must continually be born in mind in investigations such as the present one. At several points in this analysis it is therefore necessary to digress at length about particular instances of Sesotho idiom, showing especially how the shape of Sesotho expressions reinforces the normative structures in human relationships, which in turn support and give direction to society itself.

This leads to a question about which slightly more useful comments can perhaps be made. The body of material provided by the set of completed sentences is rich in common idiomatic

usage, familiar phrases and instances of folk wisdom. It is this wealth of conventional social expressions which permits the broad generalisations about Sesotho culture made here, in particular the analyses of normative structures to which reference has been made. Especially in cases where respondents offered ready replies and got through their sentence completions quickly, it may be argued that the material provided gives an insight into the conventional rather than the exceptional in Sesotho life: that it expresses the status quo rather than pointing up the dynamic or innovative elements in the nation's culture. In fact many clichés and stock phrases recur frequently in the completed sentences. "Lesotho... fatše la bontat'a rona" (Lesotho... land of our fathers - the first line of the national anthem) is an example that was often encountered. Yet it would be wrong to disparage the relevance of such bodies of material because of their often unadventurous expression. Such qualities in fact increase the value of this type of investigation in a limited enquiry of the sort attempted here. A cliché, expressing as it does the mainstream of popular consciousness, is often of more value than a purely factual, personal statement. En masse, material of the former sort presents a less interesting task in the processing stage than sentences of the latter type. But it offers far more scope for a comprehensive exposition of a society's principal features - if supplemented, as any mass enquiry of this sort must be, by detailed personal observation. An attempt will now be made to develop such a discussion.

Summary Attitudes to the everyday and attitudes to the

nature of life have now been analysed with reference to 15 of the 18 sentence introducers under consideration. Where they concern daily activities, respondents' sentences related mainly to household jobs (feminine or masculine) or farming tasks: the important role of farming in village life became evident. Reference to employment, however, was indirect and tentative. The more philosophical sentences led to the conclusion that hardship and happiness are closely enmeshed: statements of optimism and pessimism often occur side by side. It was noted, however, that such an observation is neither as simple nor as truistic as it appears. Social and material hardship are very real in Sesotho life. It was therefore suggested that, in the case of broad statements on life in general, the optimism is a social strategy for resisting the immense pressure of these hardships. In the case of Basotho's statements on themselves as a people, it was argued that the abundance of self-praise similarly takes its complement in a more real awareness of cultural subordination, of the failure of much of Sesotho life to satisfy many of the norms of the perceived western culture.

Sentence completions: hierarchical clustering

Methodology All 18 sentence introducers are now treated together in an attempt to reinforce the arguments presented above. For this purpose a matrix was created having 18 rows and 99 columns, representing respectively the sentence introducers and the categories of response. The cells were filled according to the number of times each category had been mentioned in response to each of the 18 introducers. A computer

program for hierarchical clustering devised by Gay and Wager was then fed the matrix, enabling the response categories to be grouped according to the frequency with which they were mentioned relative to each other. A plot of the hierarchy derived from the matrix in this way is presented in Figure 6.1. Down the left hand side of the plot are listed the names of the response categories. Lines linking them indicate the nature of their relative association: the closer to the left two lines join, the stronger is the association their junction represents. The clustering thus identifies bodies of opinion or syndromes of attitudes derived from the 99 primary response categories. Other evidence may indicate that these clusters represent specific groups of the respondent population. Alternatively it may be concluded that the spread of opinions is relatively homogenous and that some of the clustering relates more specifically to sentence introducers. In addition, of course, to the nature of the attitudinal material being processed, the type of introducer posed and the method of defining categories of response affect to some extent the degree to which the resultant hierarchy permits analysis of attitudes to specific subjects. An examination of Figure 6.1 indicates a hierarchy in which there are few stark trends which might easily be associated with groups of the population, and in which it is possible to identify attitudes to specific subjects. A search for principal branches of the hierarchy, ie. major clusters of attitudes, which might be associated with subpopulations of respondents (eg. young/old, male/female, traditional/progressive) is certainly not encouraged by the structure plotted here.

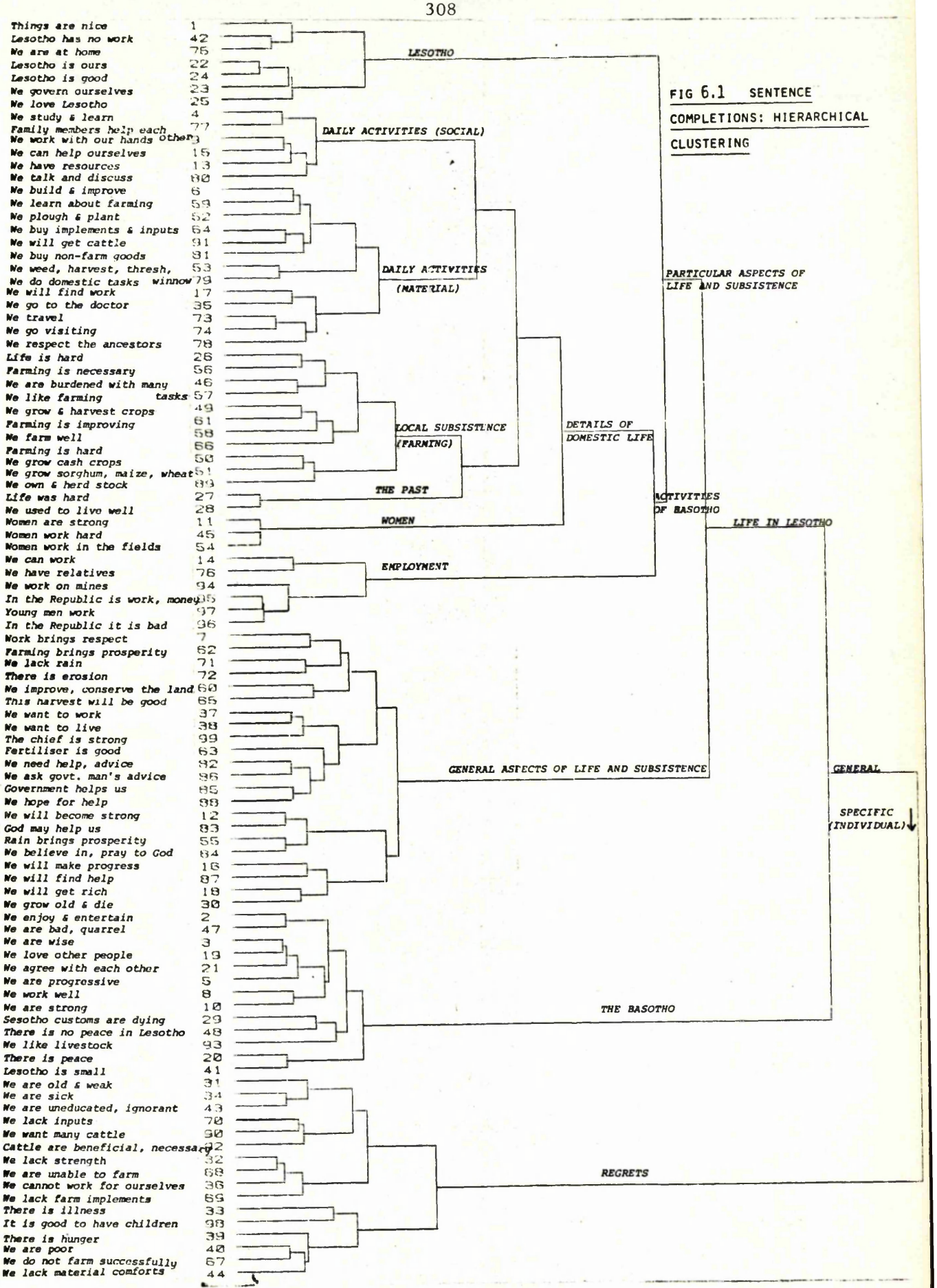

FIG 6.1 SENTENCE COMPLETIONS: HIERARCHICAL CLUSTERING

Two examples illustrate the use of this plot. Near to the top, it may be seen that response categories nos. 22 and 24 ("Lesotho is ours" and "Lesotho is good") are closely associated, their respective lines being joined after only a short distance. Closer to the middle of the table, the two dominant responses to the introducer "In the old times..." are, not surprisingly, clustered in very close association. Nos. 27 and 28 ("Life was hard", "We used to live well") appear directly contradictory, but a summary of attitudes upon which to comment is immediately supplied.

It has been pointed out above that a discussion of attitudinal questions of this type is necessarily speculative. Moreover, any quasi-objective attempt to analyse these questions must give rise to some anomalies which are hard to explain. It is hoped that the reader will engage in some personal speculation on the structure of Figure 6.1 and not consider solely the annotation provided. In labelling the branches of the hierarchy and discussing their meaning, three considerations must be kept in mind: the nature of the sentence introducers which generated these responses; the aspects of life to which the clusters may refer; and whether any clusters may be linked with certain subpopulations of respondents. Some comments on the hierarchy of clustered attitudes are now offered with these three points in mind, before an attempt is made to stand back again and consider this structured body of information as a whole.

A preliminary division The hierarchy is considered at

the most general level first, and analysis then proceeds to the more detailed. The most difficult cluster to incorporate satisfactorily into the structure is that at the bottom of the plot, which clearly relates to regrets and hardship and largely derives from the introducers "I am sorry that..." and "I am unable to...". It is suggested that this cluster has been abstracted from all the remaining response categories at the highest level of generality because these introducers gave a far greater opportunity for statements of a highly personal nature. It may be noted that more general statements of hardship (eg. "Life is hard", "We lack rain", "Lesotho has no work") do not occur in this group. The numerous personal statements relating to daily activities, hopes and beliefs are more easily extrapolated to the general sphere than are these individual problems. Consideration of this cluster of regrets is therefore postponed until the discussion returns to the level of overall analysis, when it may be enquired whether these attitudes support the arguments put forward there.

The Basotho Moving one level down the hierarchy, the remainder of the structured attitudes may in a sense be called more general. A basic twofold division occurs in this material between statements relating to the Basotho themselves, as a people (clearly emanating from the introducer "The Basotho...") and statements relating to life in Lesotho. It is not surprising to find that the cluster of attitudes relating to the Basotho takes the same shape as the responses in the preliminary listings already discussed. Laudatory and deprecatory statements occur in close contradistinction:

attention is drawn in particular to the tight association between no.2("We enjoy and entertain") and no.47 ("We are bad, quarrel") and the occurrence in this generally sanguine cluster of three other less optimistic statements: "Sesotho customs are dying", "There is no peace in Lesotho", and "Lesotho is small". Also of interest is the occurrence in this cluster of fundamental self-analysis of the statement "We like livestock", which finds no agrarian counterpart in the group.

Particular aspects of life and subsistence The second branch in this twofold division of the 'general' part of the hierarchy relates to life in Lesotho. This again divides into two broad clusters, which may be labelled as referring, firstly, to particular aspects of life and subsistence, and, secondly, to the general circumstances of life and subsistence. The 'particular' cluster is considered first.

This cluster of attitudes, which occupies in effect the upper half of the plot in Figure 6.1, divides in turn into a large group of specific comments and a smaller cluster of general comments on life in Lesotho deriving principally from the introducer "Lesotho...". This cluster, relating to the existence and significance of Lesotho as a factor per se, groups attitudes of the type already discussed in the comments on Basotho nationhood and pride, on attitudes to pleasure and hardship and their interconnection: "Things are nice", "Lesotho is ours", "We love Lesotho", etc. Perhaps the most telling indication of Lesotho life to emerge from this cluster of the hierarchy, however, is the close conjunction of no.42, "Lesotho

has no work", and no.75, "We are at home". As a graphic illustration of the relation between domicile and employment for the Mosotho or the black citizen in southern Africa generally, this needs little extra comment.

This relationship is immediately given further illustration, however, when attention is turned to the second and larger branch of the cluster referring to particular aspects of life and subsistence. This relates to all the basic activities in the lives of the Basotho. It divides fundamentally and directly into a small cluster relating to employment and South Africa, which will be considered later, and a large group relating to the details of domestic life. A subsidiary section of the cluster relates in particular to the introducer "Women..." and will also be discussed below.

The remainder of the cluster relating to the basic activities of the Basotho divides into two further groups. The first of these concerns daily activities; the second relates less specifically to the foundation of domestic life, ie.agriculture. Domestic activities again divide two ways, into social and physical ones. The cluster concerning social activities indicates the importance of the household and kin in supporting life and enabling progress to be made. It is suggested that overall, this cluster represents an assertion of the centrality of the household in the process of innovation and progress and in the non-material but everyday concerns of the villager.

Material activities relate basically to work and to other

forms of action, principally travel. Agriculture is the predominant consideration in sentences on work ("We plough and plant", "We buy implements and inputs", "We weed, harvest, thresh, winnow"), although domestic tasks of the predominantly male and female types (respectively, "We build, improve" and "We do domestic tasks") are also significant. Also important is the occurrence, in this cluster of daily, material activities, of responses relating to the purchase of farm and non-farm goods: the distances which must be travelled to retail outlets are, it is suggested, the reason for the prominence of this consideration. This leads to an inspection of the remaining material activities mentioned, which also relate to travel. The importance of travel as a concern has already been discussed and will receive further treatment below. Here it is noted only that finding work or medical attention also generally requires substantial journeys: this is a feature of many Third World societies. Cultural zones have widened far beyond the geographical limits of the village or the country: the significance of this for Lesotho will be considered in the general discussion later. The physical horizons of day-to-day life also expand substantially, however. This is not limited to the special expansion required by migrant labour in Lesotho. As a material culture grounded in an entirely different scale of space and numbers permeates the indigenous society and gains strength and authority, it suffuses a set of requirements and facilities (in that order) through the Third World country's social and geographical space. As needs are always more extensively suffused than facilities, the effect on individual lifestyle and local geography is marked: long hours are spent in travel

to obtain basic material needs at stores, clinics and post offices.

The occurrence of the response category "We respect the ancestors" is, it is suggested, less anomalous than would appear, although it would fit well also into the cluster of non-material daily activities. Respect for the ancestors is a fundamental tenet of life. It is not possible here to analyse the role of the ancestors in the structure of Sesotho society. It is merely pointed out that feasts for them are important and not infrequent occasions in village life. Whether these feasts concern marriage arrangements, births, deaths, or are ho kopa mahlohonolo feela (just to ask for good luck), they require brewing and cooking, sometimes on a substantial scale. It is for this reason, it would appear, that concern with the ancestors is clustered with more routine preoccupations.

The fundamental aspects of making a living in a Lesotho village, as represented by the second of the principal groups of responses constituting the cluster of basic activities, are now considered. This group divides into major and minor segments. The minor segment comprises three fundamental statements: "We grow cash crops", "We grow staple crops", (maize, sorghum, wheat) and "We own and herd stock". (It is significant, in the light of the discussion of cattle in Chapter three, that this last statement should take a fundamental place in this cluster on the domestic supports of life.) The major segment comprises a set of statements about farming as a way of life which mirrors the more general statements of world-view already discussed.

It may be observed firstly that "Life is hard" - a valid axiom from which to develop any discussion of the material aspects of Lesotho life. Significantly, this statement is most closely associated with the opinion that "Farming is necessary". With the exception of the general and anomalously placed "We grow and harvest crops", the remainder of the statements in this cluster constitute a combination of optimism and gloom about farming: "We like farming" yet "We are burdened with many tasks"; "Farming is improving" and "We farm well", yet "Farming is hard". It is suggested that this conjunction of opposing attitudes is again not as contradictory as it may seem: that to some extent it may represent a subconscious effort to make the best of a bad situation. It is necessary also to take account of a problem discussed above in relation to the significance of those preliminary lists where optimistic comments about the importance of farming were dominant. Some of the optimism represented in this cluster may have been especially mustered for the enumerator's benefit. As always, it is possible only to make subjective comments, but personal experience in Lesotho does not, for example, make the statement ke lumela hore mobu ke letlotlo la Mosotho (I believe the soil is the wealth of the Mosotho) ring true. The substitution of khomo (cow) for mobu (soil) produces a far more convincing piece of folk wisdom.

General aspects of life and subsistence The analysis now begins to return to a more general plane with an examination of the other major division of the primary cluster relating to 'life in Lesotho'. This group clusters together a wide range

of circumstantial comments on aspects of life and subsistence in Lesotho. They may be seen as representing many of the responses to the introducers "They have told me that...", "In the future..." and "I believe that...", and to refer to the material foundations of life, to the norms and aspirations relating to subsistence and progress, and to the structures of authority and belief in Sesotho society. Many of the questions they raise have already been discussed with reference to specific sentence introducers; here a search is simply made for further support in this cluster for the arguments which have been advanced.

There is ample mention of the essential role of farming, although an appraisal of the bolder and more optimistic comments on agriculture and agricultural progress must again be qualified by an understanding of the perceived relation between respondent, enumerator and the forces the latter represents. A real awareness is clearly evident, however, of the potential of the land to create wealth (in certain circumstances). The idea, already discussed, that living conditions are not static and that contemporary life is a base from which to contemplate or plan future improvement, can again be identified. Related to this observation is the cultural and material appraisal expressed in such responses as "We need help, advice", "We hope for help", "Government helps us". Real experience of hardship (for example, "We lack rain", "There is erosion") complements the awareness of change as an innate and powerful feature in contemporary life. Expressions of the role of the government in fulfilling the aspirations of agricultural development are

common, as are expressions of the perceived relation between Mosotho and government in this process: "We improve, conserve the land", "Fertiliser is good", "We ask the extension agent's advice", "We will make progress".

Also common are expressions of a more traditional syndrome of attitudes relating to the bases of subsistence and belief. These perceptions also are grounded in hardship, but make less dynamic reference to the prospects of resolving the problem. Such 'modern' and 'traditional' syndromes share many of the statements on the need for help. More traditional perceptions, however, indicate simply the hope that the harvest will be good. Individualistic values of progress - "We will get rich", emanating predominantly from young men - may also perhaps be grouped within this syndrome. So also should the statements on the role of God: "We believe in, pray to God" and "God may help us". The importance of the chief as an element in the relief of hardship and the administration of change is less closely associated with this group of attitudes, as such traditional authority is also perceived as having a role in modern processes of development. It is suggested that there is considerable overlap, in fact, between these two groups of attitudes to contemporary subsistence, hardship and change. Some respondents may concern themselves entirely with 'modern' statements and others with 'traditional' types of sentence; but large numbers indicate attitudes which incorporate both sets of perceptions.

Work, humanity and respect Before considering in toto the attitudes revealed by the sentences, three questions should be examined which relate primarily to specific introducers: work and employment, the role of women and perceptions of the past. Some concluding observations on the last large cluster of responses under consideration provide an interesting introduction to the subject of employment: three response categories in that group (relating to the circumstances of life and subsistence) call for comment in this context. It is significant that the two statements of desire, "We want to live" and "We want to work", should cluster so tightly together.

"We want to live" is another statement whose truistic expression belies its meaning. It has already been noted that the hardships of life in Lesotho are severe and can often be almost overwhelming: it is perception of this hardship which inspires such a statement. The many expressions of regret to the effect that "We lack strength" or "We lack life" have also been indicated, and it was observed that many feel an inability to overcome the numerous problems which simultaneously oppress them. "We want to live" is another expression of this perception of hardship. It indicates, also, the normative aspects of Sesotho culture. A number of elements making up the happy, respectable, successful Sesotho household could be identified: a man and wife, sons and daughters, fields, cattle, employment - and a number of inferior categories of household could be defined in relation to the ideal. As was noted in the discussion of cattle and marriage in Chapter three, the availability of labour units for cash employment is perhaps the

primary criterion in defining this norm of prosperity and security. This and other criteria are very commonly not met by Lesotho households: respondents from such households perceive keenly the lack of security expressed by such comments as "We want to live".

These arguments may be developed with reference to the association between the desires "We want to live" and "We want to work". It is clear that respondents want to work in order to live, and that their attitudes are again grounded in a severe hardship: it is not easy to obtain work, and those households with members who can do so are in a most favourable position. Perhaps because of this hardship, however, perceptions of work appear to acquire a normative dimension, as is indicated by the third response category under consideration here: "Work brings respect". A single sentence offered by one respondent is worth quoting in full in this context: "ke lumela hore ke tla ba motho ha nka itšebeletsa" (I believe I will be a human being if I can work for myself). The normative significance of the noun prefix mo- has already been discussed with reference to Basotho's attitudes to themselves as a people. As with Mosotho, this prefix, when attached to the root -tho (referring to basic humanity) produces a noun motho (human being) to which are related a powerful set of unstated criteria. These criteria are hard to define, but refer in part to articulateness and physical vigour. An infant takes the prefix le- (lesea, a baby) until he learns to talk and becomes motho; in old age motho becomes leqheku (an old person) as his strength and perhaps lucidity decline. Many old people made sentences referring

to the past by saying "Nakong tse fetileng nkile ka ba motho" (In the old times I was a human being). Less tangibly, but of equal significance in a definition of the Sesotho concept of whole humanity, the word motho is associated with criteria of dignity and self-respect. It is tautologous to stress these criteria as normative; rather, they are the natural outcome of satisfying the conditions of the ideal existence within society as perceived in Sesotho.

It is in this light that Sesotho perceptions of work and employment must be considered. Fundamental to such perceptions, as has been indicated, is the lack of work opportunities at home and the need of households to obtain sustenance from members who can work elsewhere. As was noted in the preliminary labelling of the branches in Figure 6.1, the cluster of response categories relating to employment is distinct and distantly separated from the rest of the responses relating to Basotho's activities. This small cluster illustrates clearly the comments already made on employment. It is significant that the statement by a minority that "We can work" is most closely associated with "We have relatives": the strength of household and kin responsibilities for those able to earn money, and the dependence of society upon such mechanisms, are evident. That such respondents are a minority is indicated by the bald statement that "Young men work", to which are closely related statements of the place and nature of that employment - "In the Republic is work, money" and "In the Republic it is bad" - and an indication of the predominant profession of male Basotho 'farmers': "We work on mines".

When at home, it is to be expected that those able to find employment elsewhere should feel that "Work brings respect" and that the rest of the population should share that attitude by according respect. This belief is important in guiding the attitudes of those at home, however, to opportunities for labour in or near the village. At some time or other in recent years, most villages in Lesotho have probably been involved in schemes for manual labour by the inhabitants to effect agrarian and infrastructural improvements such as soil conservation structures, roads and dams. The philosophy of self-help has guided the organisation of such work and is axiomatic in Lesotho's development ideology today. Most such work, however, has been accompanied by payments of 'Food Aid' - commodities such as flour, cooking oil and beans - to the labourers, in addition to which small cash payments are also sometimes made. It is not therefore possible entirely to unravel notions of self-help from more mercenary reasons for offering one's labour. The former will be considered in Chapter seven with reference to soil conservation; some comments are offered here on attitudes to such 'development' labour at home as paid work in the light of this analysis of perceptions of the concept of employment.

Villagers are usually immensely pleased to offer their services for Food Aid work; when it was organised in Ha Khoeli the quota of 75 labourers per fortnight was always greatly oversubscribed, and the work team of women and old men expressed great satisfaction at their new occupation. This was largely because it afforded the opportunity to earn a sorely

needed contribution of food and money towards household subsistence. Such pleasure and satisfaction also derive, however, from the high status of cash employment in Sesotho culture. It is not possible simply to identify a perception of those able to undertake such employment as having high status, for as the sentences indicate it is primarily young men who work. (Their period of employment is, however, commonly perceived as their entry to manhood and acceptability as mature citizens.) Such high status must also relate to the perceived interaction between Sesotho and western cultures. In the discussion above of the saying that "The Mosotho is something again" the question was raised of the dominant and encircling western culture - whose economy the Basotho must now serve in order to survive - and its effect on Basotho's perceptions of themselves. The abstract notion of the dignity of labour is an important contributor to the self-satisfaction of Food Aid labourers; so also, however, is their pride in being able to work fixed hours, Monday to Friday, for payment. In so doing, they break away temporarily from 'deep Sotho' life and participate in a different type of economy. In this way they raise their self-respect.

For these reasons it is difficult, as has been stated, to sift out the desire of the community to improve itself from its desire to get work. One bridging concept may, however, be the comparison between the conditions of labour on a South African mine and on a village road or dam. Direct material rewards for the latter work are far smaller than those at the former; yet Food Aid labour for communal improvement offers a fuller

realisation of the dignity of work than does labour at the pleasure of white employers in a mine.

Women Certain perceptions of the role of women are represented by the completed sentences, primarily in response to the sentence introducer "Women...". No adequate discussion of this subject can be offered here. Comments on sexual divisions in labour and other activities are made at various points in the analysis of village life and vernacular geography (Chapter three) and of farming knowledge and techniques (Chapter four). It may be observed simply that women occupy the central role in domestic labour: "Women are strong", "Women work hard", "Women work in the fields". Processing the sentences revealed that these perceptions of the burden of labour carried by women are expressed by respondents of both sexes. Taking into account also the few other response categories which could be ascribed to specific sectors of the respondent population, it is apparent that certain roles are clearly defined and assigned to age groups or sexes. It is the young men who work; because that age group is so occupied, it is generally older men who perform the masculine domestic tasks of building and improving and undertake ploughing and planting, which because of their connection with cattle and their requirement of physical strength, are also men's work. From day to day in the village, however, women work far harder, having the responsibility of running the household - which involves many strenuous tasks such as carrying water, brewing beer, digging earth and plastering walls, grinding grain or transporting it to a mill - and of performing certain agricultural tasks: weeding, harvesting,

threshing and winnowing. Men may assist in all the field labour, but it is commonly recognised as woman's work. In addition, of course, women commonly bear all the responsibility and strain of heading a household in the absence of men. The assertion that "Women are strong" is therefore considerably more literal than some of the other laudatory statements the Basotho make about themselves.

Past and present A number of opposing statements of optimism and gloom have been considered in this discussion of Sesotho attitudes. It has been suggested that the cause of many of the flamboyant, determined expressions of virtue, prowess and happiness is, indirectly, the hardship of life in the village. Such a dual contrast receives inverse expression in the pair of response categories which clearly derive from the sentence introducer "In the old times...". One group of response suggests the hardship of present conditions by stating that "We used to live well"; the other suggests that progress may have been made with the assertion that "Life is hard". Alternatively, however, the latter category of response may indicate that life is and always has been hard. These two responses may be ascribed principally to older respondents. The literal translation of the Sesotho sentence introducer used here, Nakong tse fetileng..., is "At past times...". Some younger respondents made general comments on the old days before they were born, but the majority of this age group made reference to their own activities at some past time. Older people provided the majority of responses relating to the old days of decades ago. The dominance of the problems of life

in their concerns is an indication not only of Sesotho life in the past - its hardship and happiness - but of the contemporary hardship which they - in particular the large population of widows - probably perceive more acutely than any other group in village society.

Sesotho world-view

Methodology This discussion of Sesotho attitudes now concludes with an attempt to summarise the ideas and opinions which emerge from the completed sentences and a statement of the author's own perceptions of these. This is a suitable point at which to stress again the speculative nature of any investigation of this type. The anthropologist achieves a more profound understanding of alien culture than can be attained by the combination of structured questioning and informal experience adopted here. He combines field methods usually designed for the intensive study of a small community over an extended period; a complex body of theory; and an intuition and empathy developed during intensive field research, to create his structured perceptions of the culture which he studies. Studies in applied anthropology are not uncommon, but the discipline has not been notably successful in meeting the methodological requirements of those whose investigations of contemporary Third World problems lead them to recognise the need to appreciate the whole of the culture with which they are concerned. This study of the condition and prospects of agriculture in Lesotho recognises that need. It recognises also the benefits to be gained from deeper intuition and theory afforded by anthropological work. It must be emphasised,

however, that unless reference can be made to the writings of an exceptionally sensitive, articulate anthropologist whose work is concerned with the same culture whose more material aspects are being investigated, 'second-hand' reference to anthropology or ethnography cannot be sufficient for the student of Third World science or economy, even if such reference does display a laudable - and regrettably uncommon - awareness of the need for some cross-cultural empathy. Any such investigation, if it is to have practical value, must make direct reference to the people concerned. Such an effort to gain an overview of the relationship between culture and material economy is an essential element in any programme for change or development in a Third World country where the agents of change and their supposed beneficiaries are members of different societies or cultures.

The type of investigation attempted must of course be tailored to conditions, facilities and the purpose of the broader venture of which it is part. The methodology and discussion presented here are suggested as one method whereby a skeletal but accurate structure of an alien culture's dominant attitudes may be related to our own perceptions, and made a productive part of an investigation of one aspect of that culture. As the resources of time, intuition and theory available to the anthropologist are unavailable (although ample reference is made to the fruits of his work), this inadequate and preliminary analysis is presented as an illustration of what those concerned with material aspects of other cultures should attempt to discover - and of the numerous fundamental questions which will

face them in such an attempt. As this analysis is part of an examination of one material aspect of Sesotho culture - the condition and prospects of farming - it will be directed principally to the material circumstances of life, of which farming is part, and to the prospects for change in this sector, an understanding of which demands some assessment of the condition of Sesotho society generally.

Hardship The discussion so far of the attitudes articulated by the Basotho in response to the sentence introducers posed to them has suggested on several occasions that many of these attitudes and the social structures they represent are grounded in hardship and strategies for enduring it. These general comments on the structure of Sesotho attitudes therefore begin with a consideration of these problems and how they are expressed. The elements of hardship in Lesotho have already been noted in Chapter two, and subsequently in the discussion of individual sentence introducers. The Basotho lack the means to subsist at any level within the confines of their own country; they must sell their labour elsewhere in order to survive. Only very recently, however, has it become possible for some Basotho to depend solely upon the sale of labour elsewhere; they have had, and in the majority of cases are still required to depend upon both farming and migrant labour to support themselves. Moreover, only a small group of the population is able to sell its labour in this way. Social strategies exist to ensure the fulfilment of communal obligations by this group and the distribution of the fruits of their labour, but many households are unable to draw adequate support from the employment of

Basotho elsewhere. Some households are able to amass substantial livestock or agrarian resources (fields, implements, finance for seed and fertiliser) and prosper by exploiting these. Others, as has been noted, are able to live comfortably (in the material if not the social sense) by selling their labour. It should be stressed that many Basotho live well in comparison with their counterparts elsewhere in Africa. Far larger than the two fortunate groups mentioned, however, is a majority of households for whom survival depends on a precarious combination of farming, migrating to work, negotiating for material assistance through the networks of kin and other obligations, and sometimes missing meals.

Even if the average standard of living derived in Lesotho from such a combination of strategies is higher in absolute terms than that experienced in many other parts of Africa, its significance lies in its relative status within the region of which the Basotho are part. The only meaning of hardship is as hardship perceived and compared: in Sesotho life the hardships endured are rendered significantly more acute by the comparison most rural people are able to make between their own lifestyle and that enjoyed by the beneficiaries of the regional economic structure. Many Basotho can make this comparison from first-hand experience as employees or visitors in the white areas of South Africa, or indeed among expatriates in Lesotho itself. It is given daily immediacy by the constant interaction between Sesotho life and western culture: in the cultural norms and aspirations discussed in this chapter, or simply when the villager sees a page from a South African

magazine or hears a radio advertisement.

Turning to the cluster of regrets at the bottom of the hierarchy plotted in Figure 6.1, it may be appreciated that many households experience a real and many-sided 'lack of strength' or 'lack of life'. Social aspirations and normative criteria in Sesotho culture were discussed earlier; it is evident that a wide and demanding range of material criteria must be satisfied if the Mosotho head of household is to call himself a 'human being'. Respondents complain that "We lack strength", that "We are unable to farm", that "We are unable to work for ourselves"; problems which in themselves constitute a 'vicious triangle' incorporating both elements of subsistence in Lesotho. More specifically, the elements of hardship are: a lack of education, ignorance of how to relate successfully to the culture which now dominates southern African society thoroughly; a lack of (agricultural) inputs and of cattle, coupled with the recognition that cattle are necessary and beneficial for life in Lesotho; a lack of farm implements; illness; and a lack of material comforts. The consequent complaint of hunger is therefore to be expected. It is significant also, in the light of comments above and in Chapter two on the importance of financial resources for the purchase of implements and inputs for successful farming, that the general statement "We are poor" clusters most closely with the complaint that "We do not farm successfully".

Farming It has been attempted in the present examination of general attitudes to sift out concerns relating to more material topics. This exercise has confirmed the central position

of farming in the attitudes articulated by the Mosotho villager. References to agriculture abound, concerning both the general fact of farming and the specific tasks it involves. Beyond a specific sexual differentiation with respect to certain field tasks, this central concern cannot be attributed to any particular subpopulation of the sample of respondents. Farming is an essential element in the lives of the vast majority of villagers, with a few fortunate exceptions mentioned above. As has just been pointed out, however, this concern with farming is grounded in an articulate expression of the hardship of life. Farming does not provide a satisfactory basis for living in Lesotho: it is necessary, but it is also hard and is often practised unsuccessfully. A wholly discrete concern may be identified with the second aspect of material culture: 'work', ie. employment, whose removal from the everyday context of village life is clearly illustrated by Figure 6.1. The comments on work relate to a specific group of the population, the young men; but they are not made specifically by that group. The concern for employment as a necessary strategy for survival is universal; and associated references to kinship and family obligations suggest the importance of the structures which diffuse the benefits of employment. This qualifies significantly the central place of farming in Sesotho attitudes, which is of course exaggerated by the fact that no sentences were generated by Basotho actually away working.

A peasantry? (2) The full meaning of the various strands of life revealed by this analysis, and their effect on the condition of agriculture, can only be appreciated by a holistic

approach to Sesotho culture as a mass of perceptions and concerns which comprises - but is not divided by - the two spheres of subsistence to which reference has been made. This dual culture is of a type peculiar to southern Africa. Its material aspects were considered in Chpater two with reference to the concept of a peasantry, often adopted in analyses of societies founded upon smallholder agriculture but moulded by their relationship to larger and more powerful economies and cultures. It was concluded that the Basotho could no longer be termed a peasantry because farming is no longer, overall, their principal means of subsistence. Like other southern African societies which survive by selling labour in the market provided by the metropolitan economy, the Basotho exhibit many of the external features of a peasantry: to quote Shanin (1971, 14), the peasant family farm is still "the basic unit of multi-dimensional social organisation", and society is still structured around small village communities. The strategy adopted for the development and support of the metropolitan economy in southern Africa has specifically required such an arrangement and formalised it in the homeland policy, as was pointed out in Chapter two. It is an indication of the success of that strategy that the Basotho - an essential part of the labour force of a modern capitalist economy and dependent, in their turn, on participation in that economy - should retain the appearance of a rural peasantry.

The labour strategy developed in the southern African metropolitan economy was, and is, informed by the racial values of the class controlling that economy. It is not possible to

comment in depth upon the sociological effects of class formation and economic change on the Basotho and their agriculture, but an appreciation of the relationship between Sesotho and western cultures assists an understanding of the condition of farming in Lesotho today and of attitudes to rural development.

This cultural analysis must refer again to the labour strategy of metropolitan capital and the philosophy of separate development which it evolved. This philosophy asserts that the black societies - such as the Basotho - which provide labour in the central economy, retain independent, whole cultures whose vitality must be preserved and which should become the foundations of new political units in the region, to the alleged benefit of all their members. It is tempting to offer a more realistic interpretation in terms of the concept of a peasantry. The key element in this concept is that of subordination, of tributary status. This involves not only the need to engage in off-farm economic activity but a subordinate cultural standing (cf. Redfield's "great tradition" and "little tradition" (1956) - a notion inimical, of course, to the philosophy of separate development). In examining the economic history of the colonial period, it is impossible - and it would be misleading - to separate the 'push' factor from the 'pull' in identifying the reasons for the commencement and continuous increase of African participation in the western market economy (eg. respectively, the need to pay taxes and the desire to obtain consumer goods). Yet an element of cultural domination becomes apparent immediately the 'pull' factor begins to

operate and indigenous material aspirations are suffused with alien tastes in clothing, food, household goods, etc.

Care should be taken in assessing the influence of the two factors in changing African economic habits, so as not to mistake 'push' for 'pull' when deprival of African means of production rendered necessary the purchase on the market of consumer staples in which these societies were previously self-sufficient. But a degree of cultural subordination - now dwindling rapidly in urban South Africa - has long been apparent and often remains so whenever Africans participate in the western market economy on unequal terms. It is widely articulated by Basotho in their reference to South Africa as the place of work, and in frequent reference to ideals of lifestyle and behaviour: the status of 'deep Sotho' culture has already been examined vis-a-vis that of lekhooa, the white man and his ways (sekhooa). A borrowed phrase for an exceptionally fine style of living is se-gentlemane (in the manner of the gentleman), and mothers are pleased to name children Lekhooa and call themselves 'MaLekhooa (mother of Lekhooa). Many material aspirations also indicate this relationship between a 'great' and a 'little' culture: Basotho women are keen to buy skin lighteners, to straighten their hair or wear wigs, lipstick and make-up; young men aspire to wear sunglasses, trilby hats and three-piece suits, to smoke 'American' cigarettes and to play dice or cards. It is these assumed norms of respectability, rather than norms of comfort revealed by the purchase of beds, furniture, cooking utensils, radios and bicycles, which lead to the placing of Sesotho culture in a subordinate position relative to the greater

culture with which it is surrounded.

It is suggested that the preponderant concern with travel among the Basotho should also be considered in this cultural context. Basotho's frequently expressed desire to travel, and the implication that this desire is not adequately satisfied, perhaps signify a restlessness among rural villagers, a dissatisfaction with the limited horizons of local life. Such restlessness should not be exaggerated, for it has been pointed out that a society at this stage of transition between traditional and western economy is generally forced to invest substantial resources of time and effort in travel to and from the sources of basic goods and services. But is should be identified as a significant factor.

This analysis of the Basotho as a peasantry, a little culture relating to a great culture, is inadequate, however. In positing the existence of two cultures, the concept of the peasantry is capable of misinterpretation in the southern African context, as lending credence to the notion that the existence of separate cultures in black society provides a rationale for the creation of political units on these cultural foundations and the exclusion of the labour force of the metropolitan economy from political participation in it. It distorts also the nature of the historical interaction between western culture and Sesotho culture, as is indicated by the ill fit of Redfield's 'traditions' in the Lesotho case. It is more accurate to offer a unitary interpretation of Sesotho culture as a single and coherent expression of the relationship between the Basotho,

and their historical experience,and the economy in which they participate. The elements of this culture as articulated by the Basotho have already been outlined; their failure to group into clusters specifically attributable to subgroups of the population indicates the universality and wholeness of contemporary Sesotho world-view. It is a culture defined by material circumstances. Life is hard, yet life is also nice, for otherwise people could not endure it. Basotho aspire to western cultural norms and often denigrate vernacular patterns of life, yet they exhibit also a strong national dignity and pride, and rely upon indigenous forms of government and social organisation in order to regulate their existence and sustain life's burdens more equitably and without demoralisation. Sesotho culture represents an integrated and functional reaction to the economic structure of southern Africa, dependent upon the metropolitan economy and yet having only the remotest political claims upon it. The Basotho's independent political status, ironically, renders them a more successful component of the apartheid labour framework than their counterparts in the Republic of South Africa.

Attitudes to rural development In the light of this cultural appraisal, Basotho's attitudes to rural development, innovation and self-help are now summarised. Each innovation undertaken by the Mosotho, each positive or negative reaction to indigenous or endogenous development initiatives, is the result of an appraisal of that change relative to culture and economy as he perceives them. A similar appraisal must be attempted in any discussion of Basotho's reaction to development

initiatives. Total culture and material economy, as has been shown, are fully integrated in Lesotho. In this discussion, however, the material and the social aspects of the Sesotho reaction to development must be treated separately if an integrated understanding of that reaction is to be gained. To conclude this chapter a discussion of the material aspects of that reaction will be offered in the light of the analysis above and as a commentary on the answers of Basotho respondents about needs, problems and changes in farming. It will receive further consideration in Chapter seven, where local organisation of rural development in the form of soil conservation will be examined.

Wallman (1972) offers a discussion of the reaction of the Mosotho to development which stresses the former, material aspects. In it she notes correctly that "existing analyses of the national economy do not fully account for the persistent failure of rural development projects in Lesotho. An appreciation of its refraction upon the individual is lacking" (1972, 252). She then examines the conditions of rural life and identifies many of the elements revealed in this study. These, she argues, constitute a "closed circle" whose constituent factors she groups under the headings Poverty, Migration and Ideology. Under Poverty she notes the hardships involved in domestic tasks, lack of arable land and of other agricultural resources, notably traction and labour, and the lack of local employment. In considering migration she notes firstly its deleterious effects on household organisation and subsistence and on village government; secondly she discusses some aspects

of the material aspirations, with their cultural effects, which migration instils in Basotho. Thirdly she identifies a congeries of attitudes which she labels "Ideology", treating first the 'lack of strength' which has been discussed in this study:

> "... a stranger to the Sesotho language and to Basuto village life is struck by the number of times certain words recur in the course of conversation. He gets an aural impression that villagers spend their days visiting, feeling ill, resting or looking for work... Observation shows these to be the preoccupations of people who in fact spend a great part of the day on the more prosaic business of survival, but the ideological content (and probable changes in it) are readily inferred." (Wallman, 1972, 256)

Her discussion of these preoccupations goes on to suggest that the hardships of domestic life in this overcrowded country and of the migrant labour system have demoralised Sesotho society to the extent that Basotho now express in their articulated preoccupations a restless, aimless, hypochondriac inability to live, help themselves or be happy.

Wallman's analysis is correct in its identification of hardship, and its emphasis upon its severity, as the root of Sesotho attitudes to life; moreover, many of the elements of hardship which she identifies as significant have emerged in this study. However, as Murray (1976b, 12) has pointed out, her analysis is not sufficiently acute in delineating the integrated nature of this culture of deprivation, nor in explaining the functional interrelations between its parts. An attempt has been made here to offer a more integrated examination of Sesotho life, and to show how attitudes to farming and agricultural change fit into this whole. The Mosotho's attitude to farming embraces three considerations:

the necessity of raising crops; his access to the means of agricultural production; and his assessment of the returns to marginal investment of time or money in agriculture relative to other activities. As was shown in Chapter two and as was made clear by the examination of the completed sentences in this chapter, farming remains a central and essential foundation of Sesotho life. Almost all rural Basotho are committed to growing crops, however hard they may find it, and in theory should therefore look favourably upon proposals for increasing yields.

Also predominant in Basotho's concerns, however, is the problem of obtaining the necessary inputs for successful farming. Sometimes the reason for this is simple unavailability (cf. the frequent reference in Chapter four to lack of seed as a reason for not planting a given crop); sometimes there is no money available for the purchase of these inputs. Sentence categories such as "We lack money", "We lack inputs", There is erosion", "We lack rain", "We want many cattle", "We lack farm implements" testify to the difficulties faced in farming. Some natural problems are insoluble; lack of cattle is the result of lack of money rather than the unavailability of stock for sale. Most problems, however, can be solved only by having the money available and by the required item being available for purchase.

A key question therefore is the Mosotho's appraisal of the optimal strategy for obtaining the factors of successful agricultural production, given that farming is necessary (and assuming for the present that such factors are obtainable).

Two options are open: the money may be raised from the land (assuming that a temporary strategy is available which permits the cultivation of a cash crop); or it may be raised outside the agricultural sector. In the area represented by the respondents in this survey, the Thaba Bosiu Project made such temporary strategies feasible by offering various forms of seasonal or long-term credit to farmers.

The low profitability of cash crop production in Lesotho - with the single possible exception of asparagus, to date - is as well known to Basotho as it is to the designers of such credit schemes, who admit privately that the risks involved in taking up the agricultural loans they offer are unacceptably high. Damage by pests or frost may be severe, and as was indicated in Chapter one, rainfall conditions are marginal. A crop may fail completely for climatic or other natural reasons, however skilled the farmer. Not only do these hazards mean that, as has been seen, Basotho must depend upon migrant labour in order to survive. Whenever money is required for investment in agriculture or any other form of domestic economic activity, it is readily obtainable, without significant risk, through the sale of labour in South Africa.

As has been shown, migrant labour is central to the culture of Lesotho. The financial and political features of the labour policy of the metropolitan economy control the status of agriculture in Sesotho perceptions. The inadequate level of wages has long rendered a dual dependence upon farming and migrant labour necessary for the Basotho; as has been indicated, farming

remains essential. The system of short-term contracts renders migrant labour an attractive strategy whenever money is required for investment in agriculture or other purposes at home. For as long as the labour strategy of the metropolitan economy remains successful in barring black workers from permanent domicile and participation in that metropolitan structure, the migrant culture and its perceptions of the place of farming will continue to prevail in Lesotho. Indeed, for ironic political reasons, even radical political change in South Africa resulting in equal participation by all races in the national economy and perhaps allowing immigration by Basotho, would not alter this situation drastically - unless a prosperous domestic economy were miraculously to develop.

The material and social aspirations embodied by this contemporary Sesotho culture affect strongly its perception of farming. Economic considerations, as has been shown, discourage significant investment of money or effort in agriculture beyond the acquisition and use of a commonly perceived set of inputs. Within these modest limits, the Mosotho farms in order to provide a foundation for a village life and the satisfaction of a set of aspirations moulded, as was seen earlier, by the non-agrarian culture. Apart from aspiring to be wealthy in cattle, Basotho want to wear smart clothes, open shops and cafes, run taxis, work as tailors or open brickyards. Assessed solely in relation to the traditional lifestyle and to farming, modern Sesotho life would indeed appear to exhibit a demoralised ideology, as Wallman (1972) suggests. The 'ideology' of a society dependent upon migrant labour is vigorous and whole,however, and many participants

in this lifestyle are innovating, exhibiting determined entrepreneurial ability and making money at home or abroad. But it is in the nature of this society that many of its members are sick and lack strength.

The prosperity and happiness of the individual Mosotho, it is argued, find their security in an agricultural base, but rarely find expression in the tilling of the soil. Where rural development proposes to strengthen these agrarian foundations, Basotho react with interest. Where it has more grandiose or less tangible ambitions, they are politely non-committal. Where rural development incorporates improvements less directly related to the fields - the construction of roads, piped water supplies, fishponds or clinics - it is welcomed and participation is often enthusiastic: not only is the village environment improved, but conditions are made more favourable for domestic economic enterprise and contact with the culture whose values are now so prevalent. Although both Basotho and the administrators of aid to Lesotho often conceal the fact, each side is well aware that the prospects for agriculture are strictly limited.

The relevance to rural development policy of such arguments, when derived from a detailed vernacular investigation of culture and attitudes to economy, is self-evident. Investigations adopting this approach are in their infancy in Lesotho and elsewhere, however, and there is much scope for the refinement of techniques, the intensification of research and the adjustment of arguments before they can make the central contribution to development planning and evaluation it is believed they should offer.

It is therefore important that governments such as that of Lesotho should promote such research and incorporate it into the machinery of policy making. It is particularly desirable that such work should also be undertaken by native members of the rural societies in question. While the outside observer of Sesotho culture may be able to offer some insights deriving from his marginal position, the Mosotho student should be far better placed to make meaningful comments about the cultural questions treated here and to interpret his experience of his own culture in an analysis relevant to the changes now taking place. It is to be hoped that facilities will be made available for such analyses to be undertaken in the near future.

Needs, problems and changes in agriculture

Another section of the questionnaire discussed earlier in this chapter will now be examined in order to find some support for the arguments developed here about Sesotho agriculture. In questions 53 - 55 of this questionnaire (Appendix III), respondents were asked to name all the things needed for good farming and high yields; all the changes they desired for better farming over the next ten years; and all the problems they faced in farming: in each case they were asked to rank the first, second and third most important factor. The three most important needs, changes and problems mentioned by each respondent have been tabulated. It was in the nature of the questions that the resultant answers should overlap somewhat, but it seems useful to present them separately.

Needs The ten factors most often mentioned as needed for good farming together with the percentage of respondents

who mentioned each, is shown below.

Table 6.16 Things needed for good farming

	%
Fertiliser	67.8
Implements	65.1
Good or improved seed	49.3
Tractor	29.9
Cattle	17.6
Good weeding	12.5
Rain	12.2
Good ploughing	10.1
Insecticide	7.2
Good (enriched) soil	3.9

This table represents an overwhelming concern with a set of commonly perceived improvements which can be achieved within the existing system of farming. It indicates also those elements of the traditional agricultural regime which are commonly felt to be lacking. Concern with the use of fertiliser and of a range of implements - plough, planter, cultivator, harrow - is striking. So is the perceived importance of good seed and of traction. The tractor was widely mentioned, but concern with the old form of tractive power, the ox, suggests commonly inadequate resources of the latter. Another innovation, insecticide, is less commonly mentioned, but awareness of it may be expected to expand. The other concerns in this list of the ten most frequently mentioned - all of which were expressed far less frequently than the need for inputs of fertiliser, seed and implements - relate to aspects of traditional farming: rain, ploughing, weeding, soil. These references to physical shortcomings and to traditional techniques, it is argued, also represent a limited set of aspirations for agricultural improvement.

Changes The ten changes most commonly desired for good farming over the next ten years are now considered, with percentages of the respondent population who mentioned each.

Table 6.17 Agricultural changes desired

	%
More implements	29.3
More fertiliser	27.8
More tractor use	24.8
Good harvests	24.5
More, better seed	20.0
(Don't know	13.1)
More, stronger cattle	9.0
More, better rain	8.1
More insecticide	5.4
More Village Distribution Points [1]	5.1

A wider range of responses was encountered here, but they represent the same syndrome of predominant concerns and indicate the same appraisal of the role of farming. An improvement in the fundamental elements of farming is desired, rather than drastic innovation. These fundamental elements are again perceived as including fertiliser, tractors, improved seed and a range of implements, with a less common awareness of insecticide; the fact that these commonly perceived requirements are often physically unobtainable is indicated by the tenth item on the list: "village distribution points" from which such inputs may be purchased. The lack of a dynamic approach to the nature or role of farming is shown, however, by the fact that 13.1 per cent of respondents could not think of any change they desired in this sector. The 'don't knows' represent at best a static

[1] Thaba Bosiu Project village depots for the sale of farming inputs.

view of the future of agriculture. Also tabulated is a selection of desired changes which indicate an opposite view, showing the low percentage of respondents who mentioned each:

Table 6.18 Percentage of respondents mentioning 'progressive' changes

	%
More agricultural teaching	2.1
Soil conservation	1.5
Irrigation	1.2
More cash crops	1.2
More winter crops	0.9
More credit	0.9
More poultry farming	0.9
Ranches, dairying	0.6
More communal gardens	0.3
More potato farming	0.3

When contrasted with Tables 6.16 and 6.17, this list and its associated percentages confirm the Basotho's desire to consolidate the basic structure of existing agriculture rather than add to it or alter it significantly.

Problems Next, the ten agricultural problems most commonly mentioned by the respondents to this questionnaire are presented in Table 6.19. These responses confirm the argument that farming cannot be adequate for even basic subsistence; fundamental factors of production such as seed, implements, cattle and rain, together with aids to good production such as improved seed, fertiliser and tractors, are lacking. Ironically, it may be noted that climatic conditions are marginal to the extent that excess rain is also a significant hazard. 'The sun' is also separately identified, representing either lack of rain or its failure to fall at the right times.

Table 6.19 Problems faced in farming

	%
Lack of implements	66.0
Lack of cattle	31.9
Lack of fertiliser	28.4
Lack of (good) seed	26.6
Pests	25.4
Lack of rain	16.7
Lack of tractors	16.1
'The sun'	12.8
Excess rain, waterlogging	11.9
Weeds, bad weeding	4.8

The role of a rural development project The principal concern Basotho express for improvement in agriculture, therefore, and that to which they will most readily respond, relates to the redress of basic inadequacies in the existing system. This system - and its improvement - is essential to the survival of most Basotho; yet its contribution to the good life is limited, as is shown by the responses to two further questions in this survey (Appendix III): what the rural development project operating in the respondents' area does, and what they would like it to do. Percentages again indicate the proportion of respondents referring to each activity.

Table 6.20 Activities of the Thaba Bosiu Project named by respondents

	%
Distribution of fertiliser, seed	43.0
(Don't know	27.5)
Agricultural information, instruction	23.3
Village Distribution Points	21.5
Roads and bridges	17.3
(Good) agriculture	13.4
Supply, repair of implements	11.6
Soil conservation	11.3
Credit	7.8
Cattle breeding and sale	5.4

Table 6.21 Other activities respondents wish the Thaba Bosiu Project to undertake

	%
Build roads and bridges	40.3
Provide village water supply	25.1
Distribute fertiliser, seed	19.7
Provide, hire tractors	19.1
(Don't know	14.6)
Plough for, sharecrop with people	10.1
Provide, repair implements	10.1
Nothing	8.4
Agricultural information, instruction	8.1
Build village distribution points	7.8

Similar concerns emerge in these tables, ignoring the 27.8 per cent of respondents who did not know of any of the activities of the Thaba Bosiu Project. The provision of the basic means of agricultural production for purchase or hire is a priority which the Thaba Bosiu Project identified at an early stage (see Chapter eight), and which Basotho in turn regard as its most important activity. The position of road and bridge construction on these two lists, however, is an index of other concerns for the good life. In the Thaba Bosiu Project area

many roads and bridges have been built to facilitate the distribution of agricultural supplies and the marketing of output; some have also been improved in connection with soil conservation. The desire for improved communications is not surprising, but its prominence in lists of actual or requested activities of an agency primarily associated with farming indicates the place of farming in the good life perceived by the villager. So also does the prominent request for the installation of village water supply systems. The 8.4 per cent of respondents who said that the Project should not do anything else arguably imply a still less dynamic attitude to the development of farming. Those requesting that the Project sharecrop with them or plough their fields for them express this attitude in a different manner. The concept of government sharecropping with people has gained widespread popularity in consequence of recent schemes such as the 1976 Winter Wheat Programme (see Chapter eight), in which major shortcomings in village agriculture are relieved by government provision of tractors, seed, fertiliser, harvesting machinery and some labour for villagers' fields in return for a proportion of the crop. Such a transfer by respondents of responsibility for agricultural operations - either just ploughing, or a wider range - from individual to government stresses the need for agricultural production but does not indicate a sanguine attitude to the ability of the Mosotho to prosper from his own efforts in this sector. These tables, it is suggested, support the argument that agricultural development initiatives will meet with a positive response if they attempt simply to supply inputs which are physically unavailable or if, like soil conservation, they

incorporate elements which have broader benefits for the quality of village life, such as roads and the provision of local employment.

Conclusion

In this chapter an attempt has been made to describe contemporary Sesotho culture. It has been shown that this culture is defined by the labour policy of the southern African metropolitan economy, and that many of its features are derived from the western culture which that policy serves. Within Sesotho culture, farming is an essential and integral component; but its perceived contribution and its potential as the means of prosperity and happiness are limited. Where agricultural development initiatives serve to enable farming to fulfil these limited criteria, they are welcomed; they are welcomed also if they in any way facilitate the attainment of the norms Sesotho culture has incorporated from western society. If they relate more arbitrarily to prosperity from the soil, however, they are treated with the scepticism which, partly for reasons noted in Chapter one, they generally deserve.

The role of national pride and identity and the place of work in Sesotho culture have also been discussed. It has been suggested that for a number of reasons Basotho are glad to work, for a small payment, on local improvements such as conservation structures, roads and fishponds. This desire to work is linked with the concept of national self-respect in the popular notion of self-help, an analysis of which forms part of the discussion of soil conservation presented in Chapter seven. An examination

of the reaction to soil erosion in Lesotho provides an important illustration of the relationship with the land as identified in the present chapter.

CHAPTER SEVEN

SOIL EROSION AND CONSERVATION: THE CONDITION OF AGRICULTURE ILLUSTRATED

INTRODUCTION

A number of comments were made in Chapter six about the place of farming in the Sesotho world-view and about the attitude of the Mosotho to agricultural or other rural development initiatives. An attempt will now be made to illustrate the conclusions reached there with a discussion of Lesotho's experience with soil erosion and conservation. In assessing Basotho's ideas on this question and examining the interaction between government and people in the local administration of conservation work, it is hoped in this chapter to provide an instructive example, not only of the condition of the country's agricultural sector, but also of the mode of analysis required if the prospects of Sesotho farming are to be appraised accurately. As will be shown, an erosion problem has long been recognised and long been combated in Lesotho, yet little success in overcoming it can be recorded.

Central to the approach of the present study is an emphasis upon vernacular knowledge and opinion in agricultural matters. In examining the question of erosion and conservation in this way, it is hoped that some light may be cast upon the reason for the inadequacy of conservation work to date - and that some suggestions can be derived for the design of future conservation policy. Before beginning to consider the ideas of rural people

on the subject, however, it is necessary to expand upon how external observers view soil erosion in Lesotho.

THE PROBLEM AND ITS CAUSES: EXTERNAL OBSERVATIONS

The extent of erosion

Soil erosion is commonly regarded by government and foreign observers as a problem of primary importance for the agricultural sector in Lesotho, and indeed for the life of the nation as a whole. Germond (1967, 407-412) has recorded the dismayed accounts of missionaries watching dongas (erosion gullies) widening and deepening at an alarming rate, and noting the concomitant sheet erosion and reduction in soil fertility. One of their number was in no doubt as to the cause of the problem:

> "Cette érosion, elle est... le résultat, indirect, sinon immediat, d'une guerre ou plutôt, d'une série de guerres qui amenèrent la création de la nation des Bassoutos... Refoulés vers les montagnes, les Bassoutos se sont vus dépossédés de leurs meilleures terres, incorporées à l'Etat libre d'Orange..."
>
> (Brutsch-du Pasquier, n.d.) [1]

The first official recognition of the problem was in the report of Sir William Willcocks following a visit to Basutoland:

> "The denudation of the country, owing to... ravines, is very serious, and if allowed to continue for as many years in the future as it has during the last thirty years, the loss to the country will be incalculable."
>
> (Willcocks, 1901,31)

A serious erosion problem was subsequently recognised in the colonial report for 1902-3 (Report, 1903, 8), in which it was stated that preliminary experimental conservation work had been undertaken.

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[1] "This erosion is... the indirect, if not immediate result of a war, or rather a series of wars, which led to the creation of the Basotho nation... Pushed back towards the mountains, the Basotho watched themselves being dispossessed of their best lands, incorporated into the Orange Free State."

In 1935, Sir Alan Pim's report on the financial and economic position of Basutoland identified "... the greatest need of the Territory, the initiation of measures to deal with the erosion which is steadily ruining the country" (Pim, 1935, 134); this led to the implementation of conservation measures which will be considered below. Official comment in more recent times has continued to recognise soil erosion as a major problem, however. The Morse Report of 1960, for instance, affirmed that "Conservation of the soil is a major need and an urgent problem in Basutoland" (Morse et al, 1960, 228). Lesotho's first five-year development plan stated:

> "The situation in the agricultural sector is...aggravated by the very high rate of soil erosion. This is the greatest single problem of agriculture... Unless present trends are radically changed, Lesotho may become a country unsuitable for any cultivation in about two or three generations." (Lesotho, 1970, 10)

Various estimates of the "present trends" in erosion are available; although none can lay claim to any great accuracy, they appear to support the policy-makers' grave assessment of the situation. One recent technical paper gives the following details.

> "On much of the arable land the annual field soil loss per acre may be in excess of 100 tons, a very high and hazardous level (160 tons = lacre inch of soil). In addition to this serious sheet erosion, it is estimated that 7% of the arable land has been lost to gullies, and that 0.25% (2,500 acres) is lost annually to new gullies and extension and widening of existing ones." (O.S.A.R.A.C./A.I.D., 1974)

Flannery (1977, 8) notes that "The Orange River, on average, carries away enough soil each year to cover 70,000 acres to a depth of 1 foot or 30 centimetres" and that "it has been estimated that there are about 25,000 gullies in Lesotho today of which around 22,500, or 90 per cent are active."

The causes of erosion

One factor which has been identified as an indirect cause of soil erosion in Lesotho - the historical misfortunes of the people at the hands of the Boers - has already been indicated. A number of more immediate factors are generally identified: these relate to the high erodibility of most lowland soils, the destructive intensity of the precipitation received, the effects of human and animal overpopulation, and poor farming and grazing practices (Pim, 1935, 135; Morse, 1960, 312; Bawden and Carroll, 1968, 24). Flannery (1977, 1-7) summarises the causes of the problem under eight heads: rainfall; tillage practices; overstocking; bush encroachment (the replacement of grass by shrubs or bushes); the destruction of trees; grass burning; damage deriving from roads and paths; and innate soil erodibilities. It is perhaps most relevant to quote at length the causes defined by the Lesotho government:

> "The high pressure of human and animal populations seems to be the main cause of accelerated soil erosion. This pressure results in :-
> (a) cultivation on sub-marginal lands and in particular on slopes that are too steep;
> (b) fragmented agricultural structure, which impedes the execution of effective soil conservation work (1);
> (c) overgrazing and destruction of the vegetation.
> Poor agricultural techniques and injudicious land use in general are aggravating factors, which are also indirectly related to population pressure. Paucity of trees and occasional heavy rainfalls are additional causes of soil erosion." (Lesotho, 1970, 10)

It has been shown that successive generations of colonial and Basotho administrators, and other western observers, have identified soil erosion as a severe problem. Despite very substantial conservation work since 1935, the rate and extent of the damage continue to be a subject of grave concern. To what

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1 See Sello, 1967.

extent, however, are technical explanations of the type quoted in this section adequate descriptions of the causes of the phenomenon? An examination of the opinions of rural Basotho about erosion will help to indicate whether arguments relating to the nation's regional status are also relevant.

THE PROBLEM AND ITS CAUSES: SESOTHO IDEAS

Erosion as a problem

The replies of Basotho to questions about their needs, desired changes and problems in farming were considered in Chapter six. It was shown that the principal changes Basotho desired related to the availability of implements, fertiliser, improved seed and traction; only 1.5 per cent of the respondent population mentioned a desire to see more or better soil conservation. Moreover, very few people identified erosion as one of their problems in farming; they were again principally concerned with their lack of agricultural inputs and with natural hazards such as drought or waterlogging. The very frequent references to the need for fertiliser, and more generally to the importance of good or enriched soil [1], indicate a common awareness of the low fertility of such cultivated land in Lesotho today. Rural Basotho's assessment of the significance of the physical removal of soil - by sheet or gully erosion - as a primary cause of low agricultural productivity, would however appear to differ substantially from the views of 'western' observers quoted above.

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1 In this case respondents were commonly referring to the spreading of ash or manure.

A questionnaire survey In an attempt to investigate Sesotho perceptions of soil erosion more thoroughly, a questionnaire survey was administered in the area of the Thaba Bosiu Project during June, 1977. A total of 247 questionnaires were administered, approximately 50 in each of five villages. Respondents were all heads or acting heads of land-holding households. The five villages were chosen with regard to local erosion and conservation conditions [1]. The chief and people of Thoteng Ha Mothobi, a foothill village, had recently applied to the Conservation Division of the Thaba Bosiu Project for conservation work to be implemented on their land. At the second village, Ha Tumahole (also in the foothills), conservation work was in progress at the time. Ha Ratau, another foothill village, was the showpiece of the Thaba Bosiu Project; here extensive conservation works have been implemented and substantially completed. The fourth village, Mauteng Ha Sanaha, is a larger community in the lowlands at the southern edge of the Thaba Bosiu Project area. Erosion is more widespread on its lands than on those of the foothill villages surveyed, and no conservation work has been carried out since colonial days. Ha Makhoathi is also a large lowland community, many of whose inhabitants work in nearby Maseru. The agricultural land in this area appears exhausted, although a number of dams and other conservation structures were installed in colonial times. As one resident there noted, "fatše lena le felile" (this country is finished). An English version of the questionnaire, and some of the results, are presented in Appendix IV.

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[1] See map, Appendix IV.

Problems in questionnaire investigation In the discussion of attitude surveys in Chapter six a number of problems in the questionnaire technique were discussed. It was shown that some allowance must be made for the distortion by the respondent of his actual attitudes and preoccupations into a form he deems suitable for the enumerator to record. In the evaluation of questionnaire survey data on soil erosion and conservation, these sources of distortion - rooted in the complex, inter-dependent web of farmers' and government agents' mutual perceptions - must again be considered. Particular attention must be paid to the possibility that villagers may believe it to be advantageous to stress the severity of their erosion problem, in order to encourage the implementation of a conservation programme - with Food Aid or wage labour - in their community: the question of work and self-help, which received some consideration in Chapter six, will be discussed in this context later in the present chapter.

The nature of the questions under consideration in a soil erosion and conservation survey poses further difficulties, moreover. If productive interaction between western and vernacular perceptions of the problem is to be promoted, it is necessary to enquire not only whether Basotho identify soil erosion as a problem, but what they believe its causes to be and what action, if any, they believe is required to alter the situation. It is meaningless, and indeed impossible, to consider the three questions - the perceived existence of a problem, its causes and its solution - in isolation. But in a discussion of each through a questionnaire interview, attention must be paid not only to the problem of enumerator-

respondent interaction already described, but also to the 'leakage' which is likely to occur between the three sections of the enquiry. To give two simple examples, the respondent is more likely to answer that, yes, there is erosion on the lands of his village, if in an earlier question he has been asked what forms of soil loss he can name. He is more likely to identify human beings as a cause of erosion if he has already been asked what villagers can do to reduce the severity of the problem. The questionnaire must therefore be designed so as to minimise the possibility of such 'leakage' and to make it difficult for the respondent to deduce what causal links are identified by the author of the questions. The structure of the questionnaire designed for use in this survey is an attempt to do this: aspects of the results which indicate that it was not entirely successful will be indicated in the discussion which follows.

Erosion and the quality of the land In an earlier questionnaire survey (Turner, 1975, 36-46), a short section on soil conservation was introduced with the question, "Does the quality of the land remain the same?", to which the overwhelming majority answered in the negative. In a subsequent Thaba Bosiu Project General Evaluation Survey [1] (March, 1975), this question was repeated (section K): 84.5 per cent of the respondents said that the quality of the land changed. Such a question provides a useful opening to the topic and indicates the widespread awareness that much of Lesotho's arable land is declining in productivity. It does not show, however, whether respondents

[1] The G.E.S. was administered regularly from 1974 to 1977 to a constant sample representing approximately two per cent of the land-holding households of the Thaba Bosiu Project area.

identify the erosion of soil as a problem in the way that western observers have done. Evidence from the survey of farming problems and desired changes suggests that they may not.

A further indication of this is given by responses to a second question in the same section of the March 1975 General Evaluation Survey. Those who had said that the quality of the land did change were asked: "What are the changes on the land that you have noticed?" (The alternative responses listed were: dongas/increase in brush/sheet erosion/decrease in fertility of soil/other.) The table below indicates the replies to this question (percentages indicate proportions of the group of respondents to whom it was applicable).

Table 7.1[1] "What are the changes on the land that you have noticed?"

	%
Decrease in fertility of soil	25.1
Sheet erosion	23.6
Dongas	11.1
Sheet erosion + dongas	10.7
Fertility decrease + dongas	6.6
Fertility decrease + dongas + sheet erosion	6.6

(Source: Thaba Bosiu Project G.E.S. III, March 1975, Q. K2)

A reduction in the fertility of the soil is the most common singly mentioned factor; but processes of erosion taken together

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1 In this and some other tables, only the most common responses have been listed and percentages do not therefore sum to 100. In some tables more than one response may have been included for those mentioning more than one factor (such as causes of erosion) in their reply: percentages may then sum to more than 100. Some percentages and totals may display slight incompatibility due to rounding or imperfections in questionnaire administration.

form the most frequently identified form of change in land quality. It is interesting that respondents should refer to sheet erosion so much more often than dongas, which is the opposite of what a visual inspection of Lesotho conditions would lead one to expect.

Definitions At this stage the Sesotho term for soil erosion - khoholeho ea mobu - should perhaps be noted. This may simply be translated as 'the washing away of soil' (from ho khohola, to wash away). It thus constitutes as literal a description as the English 'erosion': as a phrase in general usage it is also probably slightly removed from the immediate, direct concepts of running water carrying away soil, in the same way that 'soil erosion' constitutes an independently recognised idea in English. The Sesotho words used to describe the general process do not therefore distort our understanding of how it is identified in that language.

The donga or gully, lengope, is also unambiguously named in Sesotho. The identification of sheet erosion by the Mosotho villager, or by the enumerator who decides to classify a response under that heading, is more problematical. Indeed, many non-technical English-speaking observers may be aware of the term 'sheet erosion', and use it, without being able to define it clearly. No information is available about the classificatory criteria of enumerators in the G.E.S. survey as they allocated a response to one or other of the available categories described above; in fact it is most unlikely that they were entirely consistent. It may be assumed that the dictionary term for sheet erosion, khoholeho ea mobu oa holimo

(washing away of the top soil), formed the actual words of only a fraction of those respondents reported to have referred to this process, and that enumerators grouped a wide variety of more or less clearly described changes in land quality under this head. The data are not therefore entirely satisfactory; but it must be stressed that such problems are difficult to avoid in the questionnaire enumeration of vernacular perceptions of this type.

Manifestations of erosion and deterioration In the June 1977 questionnaire, after a series of introductory enquiries and questions about grazing - it being assumed that the latter would not seriously bias subsequent responses and that the purpose of the interview had already been masked by the introductory section - the following simple question introduced the subject: "Is there soil erosion on the lands of this village?" (Grazing areas, fields or any other place)". Respondents answering in the affirmative were then asked to say what forms this erosion took and where they occurred - in grazing areas (naheng)[1] or fields (Question 28, Appendix IV). It will be noted that Q.28 did not present the enumerator with a fixed set of categories into which the respondent's answer should be allocated; classification was done in subsequent coding and processing of the replies. In this processing, very few recorded replies were encountered which it was felt could accurately be translated as 'sheet erosion'. The percentage of the 220 respondents to whom the question applied mentioning each of the principal types of erosion as classified is shown below.

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1 See Chapter three.

Table 7.2 Types of erosion mentioned

	%
Dongas	87.9
Rills and furrows	14.0
Sheet erosion	3.4

(Source: June 1977 soil conservation survey, Q.28)

For comparability with the results of other questionnaires already presented, responses to the next question in this survey must also be considered. Having elicited replies on soil erosion per se, the questionnaire went on to ask (Q.29): "In what other ways does the land become poorer? Specify in detail". It was hoped that the respective wording of the two questions, on soil erosion and other damage, might assist in separating the problem of erosion from other cases of deteriorating land quality. As the results tabulated below indicate, this attempt was not entirely successful. Only the more common replies are shown; some are amalgamations of the categories originally coded.

Table 7.3 "In what other ways does the land become poorer?"

	%
(Don't know	38.5)
Heavy rain	30.0
Bad grazing/herding practices	9.4
Bad farming practices	9.3
Overstocking	3.6
Burning grass	2.4
Not using fertiliser	2.0

(Source: June 1977 soil conservation survey, Q. 29)

The reference to "heavy rain" in particular appears to indicate that many respondents tended to perceive this question as an

extension of the previous one and therefore offered explanations of what causes soil erosion to occur (despite unambiguous Sesotho wording: "ke mekhoa efe e meng e etsang hore mobu o felloe ke matla? Hlalosa hantle.") It is interesting to note, however, that substantial minorities are aware of the detrimental effects of bad farming practices, grass burning, overstocking and bad grazing practices upon the productivity of the land.

Identification of a problem Imperfections in survey design, arising from real difficulties in enumerating vernacular attitudes to these questions, make it hard to draw clear conclusions from the data presented about the extent to which Basotho identify erosion as a problem. It may be observed, however, that when asked simply what their difficulties in farming are, few people point to this factor, although many note the declining fertility of the soil. When questioned specifically about soil erosion, most lowland and foothill Basotho would agree with the western observer that it is apparent on their land and that dongas are its most visible manifestation.

Drawing upon the conclusions reached in Chapter six, it may be argued that the 'average' Mosotho cultivator's assessment of his problem is an accurate one. The land is necessary to him as a vital but secondary contributor to his livelihood; he must cultivate it each year in order to sustain himself and his household. In this subsistence position his priorities must be to obtain implements, good seed and fertiliser, and he must hope that natural conditions are favourable. If a donga eats away a metre from the edge of his field, this merely gives slight reinforcement to the structure of his 'average' household's

economy: the principal factors of survival are not to be found in the land.

If the Mosotho perceives that the quality of the land is deteriorating, he may point to the removal of the topsoil by sheet erosion. He is more likely-and, it may be argued, he would be more perspicacious - to point to monoculture, bad farming practice, grass burning or overstocking. These are aspects of a labour reserve structure which requires a steadily increasing population to retain 'traditional' social forms and modes of subsistence and merely to exploit the soil rather than intensively to farm it in a close and productive relationship. If the entire population of Lesotho were required to live by cultivating the land within its borders, and had not been drawn into the process of development and underdevelopment described in Chapter two, their attitudes to the problem of soil erosion might reveal a more immediate concern. In present conditions, however, it would be less catastrophic for the entire arable area to be rendered unproductive by erosion than for the offices of the labour recruiting agencies permanently to be closed. It seems important to consider the question of Lesotho's soil erosion in this regional context if the human element in the syndrome of deterioration is to be understood. For a conservation policy based upon a narrower appraisal of Mosotho's economic and political status on his land is unlikely to succeed.

The causes of erosion

Factors Basotho mention In the light of these arguments on Basotho's identification of soil erosion as a problem, attention may now be turned to the narrower question of the causes of the process as they perceive them. In the small questionnaire survey of 1974 (Turner, 1975, 42) respondents were asked, "Why do dongas form and why does the land become poorer?" The large majority replied with reference to climate and soil type rather than to factors such as overgrazing, incorrect farming practices or high population density. In the General Evaluation Survey of 1975, the previous question about "changes on the land" was followed by the question, "What has caused these changes?" As with the 1974 questionnaire, replies were allocated to fixed response categories. Here again, natural causes (climate and soil type) were the reasons most frequently mentioned, although 23.2 per cent of the respondents referred to "bad farming practices". A question of this type was asked for the third time in the 1977 survey: the wording was the same as that used in 1974, although the fixed response categories were altered somewhat and subsequently elaborated in processing. The principal answers are shown below.

Table 7.4 "Why do dongas form and why does the land become poorer?"

	%
Rain	86.2
(Don't know	4.5)
Rain and overstocking	2.0
Soil type	1.6

(Source: June 1977 soil conservation survey, Q.31)

Replies to questions about the causes of soil erosion thus appear overwhelmingly to refer to the destructive impact of rain upon the soil (particularly frequent reference was made in the 1977 survey to the brief, violent storms in which much precipitation is received, and to the short-lived but powerful torrents and waterfalls which consequently rush over the ground). In explaining why erosion occurs few people seem to take into account demographic pressure or human error. Indeed, in discussion of the 1974 survey results it was argued that "Where human error was mentioned, it was generally specified as failure to install adequate mechanical works for the prevention of soil loss. This is simply an extension of the physical determinism of attitudes" (Turner, 1975, 29).

Problems in questionnaire investigation Another source of confusion arises in assessment of Sesotho perceptions of the causes of the problem. Asked what causes a donga to form, the respondent may quite reasonably describe just the physical process of rain water carrying off soil - whether or not he is aware of the many other factors which render the process so destructive in Lesotho. Questionnaire enumeration does not often encourage the respondent to offer a lengthy analysis in reply to a question of this type. He or she may be bored, intimidated, confused or irritated by the interview, and the enumerator may also on occasions be bored and anxious to bring the questioning to an end. If further questions are asked - either impromptu by the enumerator, or as part of the structured interview - it is impossible to prevent 'leakage' between the western perception of the causes of the problem, which controls the nature of these further questions, and that of the respondent.

It is clearly useless to ask whether there is a connection between dongas and livestock, or between dongas and ploughing; such enquiries are invalidated from the outset by their innate prejudice towards the causal structures perceived by their author. At this stage it can only be concluded that Basotho are well aware of the direct physical effect of water upon soil which leads to the formation and extension of dongas. Their ideas on the more complex factors enhancing this process may only be surmised indirectly.

Grazing

Overstocking and bad grazing practices are frequently adduced by external observers as a major causative factor in Lesotho's erosion problem, as was indicated above. (The burning of grass may also be noted in this context: this practice, which encourages a fresh growth of palatable grass for livestock in the spring, reduces the protective, binding cover over the soil). It is therefore necessary to devote some attention to grazing in the vernacular context. Indirectly, it is possible by examining grazing practices in this manner to infer Basotho's ideas on one of the principal causes of erosion identified by outsiders.

The Sesotho grazing system A well-established Sesotho grazing system remains operative in most communities. One aspect of this system is annual transhumance to mountain cattle posts. Decisions as to when to send cattle off to such posts are largely made by the stock-holder, although the working of transhumance systems is dependent upon the maintenance of good relations between the chiefs of the two communities concerned,

and is subject to certain government regulations (as yet ill-enforced).

A second element of the grazing system may ultimately require the stock-holder to dispatch his animals if he delays too long. This second part of the Sesotho structure relates to the maintenance of grazing resources on the lands of the village itself. It centres around the office of the grazing controller, mobehi oa makhulo. One or more of these officials - usually men of some standing - may be identified in most villages. In some cases the controller holds office for a long period, being generally recognised and respected in his position; elsewhere, the post may pass through several hands. The authority of the controller derives from that of the chief, affecting as it does matters of land use. His task is to declare the opening and closing of the grazing areas into which the village's non-cultivated land is divided; this he does either by public announcement at a pitso (village meeting) or by word of mouth[1]. Certain areas are closed to grazing at certain times of the year, during which the grass is expected to regenerate. For a period during the summer the controller may declare all village grazing land closed to cattle, with the exception of cows and milk cows. All other stock is expected to have been sent to the mountains by the closing date. These closed areas are known as matobo or maboella. Some grazing

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1 Evidence from Ha Khoeli suggests that the driving of cattle into newly harvested fields to graze (ho phunya) is more a matter for arrangement between the field-holder and the chief or the chief's herdboy, as the chief's cattle should lead those of other villagers into the field.

controllers are also responsible for the erection and maintenance of heaps of stones (mekolokotoane) which serve as beacons to demarcate the reserved areas, and police the protected sections more or less vigorously. Any stock found grazing there may be seized by the controller and impounded at the chief's place pending payment of a fine by their owner.

This brief summary of the Sesotho grazing system[1] has been presented to indicate that the Basotho are not irresponsible exploiters of grazing resources. Any assessment of livestock damage as a cause of erosion should take into account the workings of this system and the extent to which it is known and understood by villagers. As the successful functioning of the grazing structure depends in the main upon the observance of its rules by the boys who herd most households' livestock, it is also relevant to enquire about villagers' opinions on herdboys' responsibility as effective grazing managers. A section of the 1977 soil conservation survey was therefore devoted to these matters. In order to minimise distortion of replies in the manner described above, this section was introduced early in the interview, after the preliminary questions.

Transhumance Of the 247 households enumerated in this survey, 147 or 59.5 per cent reported ownership of cattle, sheep or goats. The first aspect of Sesotho grazing practice investigated in the questionnaire was transhumance (Qs. 19 and 20, Appendix IV). Of the stock-holding households, 68.7 per cent

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1 See also Sheddick, 1954. 107: Jenness and Khethisa, 1971, 7-10

claimed that they had sent their animals to a cattle post the previous summer. It is interesting to note how this proportion varied between the five villages surveyed.

Table 7.5 Transhumance, 1976-7

Village	Stock not sent to cattle post (% of stock-holders)	Stock sent to cattle post (% of stock-holders)
Thoteng	5.3	94.7
Tumahole	23.1	76.9
Mauteng	26.9	73.1
Makhoathi	46.2	53.8
Ratau	61.3	38.7
Total	31.3	68.7

(Source: June 1977 soil conservation survey, Q.19)

A large number of factors which were not investigated - such as the amount of grazing available on the lands of each village, the size, quality and accessibility of the cattle post areas involved, and the average size of stockholding in each village - control the variations recorded in Table 7.5. It may be observed, however, that the two villages closest to the mountain zone, Thoteng and Tumahole, reported the highest proportion of stock sent to cattle posts: in fact, one of the two areas used by Tumahole for this purpose, 'Malehloane, borders immediately upon the village lands, over the first ridge of mountains. One of the two lowland villages, Mauteng, shows substantially more transhumance (73.1 per cent of stock-holding households) than the other, Makhoathi (53.8 per cent). Ratau, the village where the most intensive conservation work has been carried out, is the only one in the survey where less than half (38.7 per cent) of stock-holding households said they had used

a cattle post. Some further information is provided by the replies of those concerned as to why they had not sent their stock to a post:

Table 7.6 Reasons for not using cattle posts

Village	Reason							
	Lack money, herdboy	Enough grazing here	Small holding	Post closed	Fear of theft	Other	Don't know	Total
Thoteng	1	-	-	-	-	1	-	2
Tumahole	2	-	2	-	-	-	1	5
Mauteng	6	-	1	-	-	-	-	7
Makhoathi	9	-	1	1	-	1	-	12
Ratau	7	1	7	-	1	3	-	19
Total	25	1	11	1	1	5	1	45
%	55.6	2.2	24.4	2.2	2.2	11.1	2.2	100

(Source: 1977 soil conservation survey, Q.20)

Knowledge of the local grazing system Following the questions on transhumance, an attempt was made to investigate villagers' knowledge of the reserved grazing system. Respondents were asked: "What parts of the village lands are reserved grazing at certain times?" (Q.21, Appendix IV) Clearly it could not be expected that an exact description of the areas in question would be given to the enumerator or that the latter could record it; nor was it possible to establish from grazing controllers or other authorities what in fact these reserve areas and communal timetables were for each village. This question served only as a crude index of the proportion of the respondent population with an approximate idea of at least some restricted areas and periods. This proportion was high: 85 per cent named at least one reserved grazing area. Allowance must be

made for the probability that a number of respondents were guessing and that some gave incorrect replies: a general, if imprecise awareness of the workings of the system may however be identified.

Again making allowances for inaccuracies and guesswork, it would appear that a slightly smaller proportion of the population can identify the grazing controllers in the village. Responses to Q.22 of this survey suggested that 66.8 per cent of villagers questioned knew who the controllers were. It is interesting again to break this information down by village, although comments must once more be limited by inadequate background data:

Table 7.7 Knowledge of the identity of grazing controllers

Village	Controller(s) not known (%)	Controller(s) known (%)
Thoteng	17.0	80.9
Tumahole	34.6	55.8
Mauteng	36.7	63.3
Makhoathi	46.9	53.1
Ratau	16.0	82.0
Total	30.4	66.8

(Source: June 1977 soil conservation survey, Q.22)

Thoteng, where a high proportion of respondents could name the grazing controller, is the smallest and most tightly-knit of the five communities surveyed. Ratau, where this proportion is highest, has a well-known and effective structure of village authority as a result of the intensive organisation of soil conservation and land reallocation there. In the third foothill village, Tumahole, many respondents complained that

the grazing controller changed frequently and that it was not therefore easy to be sure who he was. In the larger, sprawling community of Mauteng in the lowlands, a substantially smaller proportion of respondents could name the official. The widespread ignorance as to the controller's identity in Makhoathi may be due to that village's proximity to Maseru, where many of its inhabitants work.

The functions of the grazing controller have already been described. The most common view of respondents on the nature of the job, from which that description was partly drawn, are tabulated below. As only the first function named by the respondent was recorded, this table presents a simplified indication of how villagers understand the official's place in the grazing structure. It will again be noted that a substantial proportion of the population could not answer the question.

Table 7.8 Functions of grazing controllers

	% of respondents
Call a pitso and inform the community about grazing reserves	34.0
(Don't know	28.3)
Check the condition of reserves and warn herdboys	14.6
Erect beacons	14.2
Seize cattle	4.9

Source: June 1977 soil conservation survey, Q.23)

It can be concluded, however, that in all the communities surveyed the office of the grazing controller remains an important and functional element in the Sesotho grazing system.

Herdboys If grazing malpractice is to be identified as a significant cause of soil erosion, attention must be paid not only to the office of the grazing controller but also to the responsibilities and behaviour of the herdboys who tend most households' stock. Although controllers have the authority to police reserved areas, few do so on an active, regular basis, as the low priorities of these duties in Table 7.8 suggests. The successful functioning of the grazing system is largely dependent upon the awareness and responsible herding of the boys who tend the animals. Many of these are very young, as is shown by Table 7.9

Table 7.9. Ages of herdboys

Age	%
5- 9	17.5
10-14	34.2
15-19	53.3
20 and over	15.0

(Source: June 1977 soil conservation survey, Q.14)

Following the questions on the duties of the grazing controllers, respondents were asked whether in their opinion herdboys understood the reserved grazing laws. Here three fixed categories of response were adopted:

Table 7.10 "Do herdboys understand the reserved grazing laws?"

	%
Most of them	59.3
Some of them	30.1
None	5.7
Don't know	4.9

(Source: June 1977 soil conservation survey, Q.24)

Although villagers suggested that a reasonable proportion of herdboys have some idea of their duties regarding responsible grazing practice, it is clear that many offences are committed by these boys out in the country with their animals. Indeed, as was observed in Chapter three, a common feature of the rural Lesotho scene is the man shouting rebukes at a distant herdboy who is allowing cattle to stray into a field of crops or a reserved area. Respondents in this survey identified the following as the principal crimes committed.

Table 7.11 Damage caused by herdboys

Offence	% of respondents mentioning each
Grazing crops, especially sorghum	36.8
Grazing reserved areas	35.7
Stealing maize cobs from fields	17.4
(Don't know	4.3)
Grazing thatching grass and spoiling reed beds	1.9
Burning grass	1.4

(Source: June 1977 soil conservation survey, Q.25)

The damage herdboys cause appears to be an accepted feature of village life. Rarely are older men able or prepared to go out each day of the year with the animals. For the vast majority of adults it is impossible to devote to livestock the time their herding requires. Any increased investment of adult time in herding would not adequately be repaid by reduced stock damage, as a relatively efficient system of recompense for damage to crops or reserve areas exists through fines in the village courts. A household may benefit in the long run if

adult time is devoted to herding so as to release a boy for school, but this consideration does not impinge upon the effectiveness of the Sesotho system of food and grazing resource protection. The system of reprimands and punishments in force is considered by most Basotho to deal adequately with the damage caused by the negligence or mischief of herdboys, however irritating this may be from time to time. This is indicated by the replies to Q.26 of the soil conservation survey, which asked where applicable how herdboys might be taught to prevent the damage respondents had just described.

Table 7.12 How herdboys can be taught to prevent damage

	%
Seize cattle, impose fine on their owner	45.3
Reprimand by chief or parents	28.4
Beat them	13.4
(Don't know	9.5
Instruct them about grazing system	1.0

(Source: June 1977 soil conservation survey, Q.26)

Only a very small minority of respondents referred specifically to the need to teach herdboys better grazing practices. Basotho appear to ascribe the damage caused by herdboys more to their negligence or mischief than to ignorance of proper behaviour. This again suggests the currency of the reserved grazing system.

The adequacy of grazing resources The final question asked about grazing in this survey - positioned in a later part of the interview so as to reduce any bias on other replies - simply enquired whether respondents felt there was sufficient grazing on the lands of their village. 85 per cent of the total survey population felt that there was. The size of this majority

in each village may be examined:

Table 7.13 Adequacy of villages' grazing resources

Village	Inadequate (%)	Adequate (%)	Don't know (%)
Thoteng	10.6	85.1	4.3
Tumahole	13.5	76.9	9.6
Mauteng	14.3	81.6	4.1
Makhoathi	12.2	81.6	6.1
Ratau	-	100.0	-

(Source: 1977 soil conservation survey, Q.36)

It is also interesting to note the replies of 122 households in Ha Khoeli to Q. 73 of the census carried out there (Appendix I). Here the question was elaborated to consider grazing resources for three groups of animals:

Table 7.14 Adequacy of Ha Khoeli grazing resources

	Inadequate (%)	Adequate (%)	Don't know (%)
Cattle	54.9	44.3	0.8
Sheep & goats	55.7	42.6	1.6
Horses and donkeys	36.1	63.1	0.8

(Source. Ha Khoeli census, 1977, Q.73)

The extent of satisfaction with grazing resources suggested by these survey results is somewhat surprising in the light of the concern expressed by external observers about the problem of overstocking. Research to date has not been adequate to offer a proper explanation of this apparent discrepancy: only exploratory comments may be offered on this question, as on the wider one of Sesotho perceptions of grazing practice and its connection with soil erosion. First, the nature of the wording used in these survey questions should be noted. The word lekhulo,

used in each case as a translation of 'grazing' is unambiguous. It is defined by the dictionary as 'grazing ground or pasture'. It cannot reasonably be suggested that Basotho have replied that the grazing area is adequate, while being aware that the quality of grazing grasses on that land is not; for, as in English, the word 'pasture' refers to a concept not only of land area but of land use: the noun lekhulo derives in fact from the verb ho fula, to graze. When a Mosotho speaks of lekhulo, therefore, he refers not only to an area of ground but to the edible vegetation covering it.

It might be suggested that respondents pretended an opinion that grazing was adequate because they feared the consequences of an admission that it was not. Even allowing for an exaggerated mistrust of government intentions, however, it would seem somewhat fanciful for the villager to fear a programme of compulsory destocking or control of acquisition of stock as a result of his replies. With the exception of police registration of animal movements and action against stock theft, implementation to date of existing government livestock policy - the imposition of grazing quotas on cattle post areas, for instance -has been very lax. No clearly satisfactory explanation of the alleged satisfaction with grazing resources can be derived from possible respondent fears on this score. Three other factors may possibly be more relevant as explanations of this phenomenon.

The first factor is the sex ratio of the respondent population. In the case of the soil conservation survey, 63.2 per cent of those interviewed were women. This imbalance reflects the context of the migrant labour structure discussed in Chapter two.

The extent to which cattle,in particular, are a masculine preoccupation was indicated in Chapter three. It is possible, therefore, that some of the female respondents in these surveys knew very little of grazing conditions and, observing accurately that the Sesotho grazing system continues by and large to function, stated that their villages had adequate pasture.

The second factor is the proportion of the respondent population owning livestock. As was indicated above, 40.5 per cent of the respondent population in the soil conservation survey did not report ownership of any stock. The attitude of this group of respondents to the question of the adequacy of grazing may be compared with that of women already discussed, although the importance in Sesotho society of cattle in particular renders most men conversant with livestock affairs whether they own any animals or not.

The third factor of possible value in explaining the apparent complacency about the availability of grazing relates to the average size of stock holding. As was indicated in Chapter three, this is generally small. Many cattle-owning households have only one or two beasts, and very few own more than ten. The distribution of sheep and goats between households is more asymmetric: in the foothills especially, occasional individuals own flocks of several hundred from which they earn a substantial living. It is far more common, however, for a household to own one or two or half a dozen sheep and goats. It might be suggested that the fragmentation of Sesotho stock-holding reduces the awareness of overstocking as a problem. Although the owner of two cattle and the owner of twenty both

suffer from, and should be aware of, the inadequacy of grazing resources and the steady deterioration in their quality, the latter is likely to be confronted with these problems on a more immediate and day-to-day basis than the former.

No clear explanation can be offered of Sesotho perceptions of the adequacy of grazing resources. Nor, in the light of survey research to date, can an adequate analysis be made of the apparent discrepancy between the alarm of government and foreign observers at the connection between current grazing conditions and soil erosion, and the relatively complacent attitude expressed by Basotho. Most villagers feel that the established grazing practices and systems of control continue to function fairly satisfactorily. They do not connect inadequacies and imperfections in this area with the growth of dongas; indeed a deterioration in grass cover is likely to have sheet erosion as its more immediate result on the sloping land which constitutes almost all the grazing area of a Lesotho village. As has been shown, sheet erosion is a less clearly conceived process among Basotho than the development of gullies. Moreover, fewer people are directly and regularly concerned with the condition of naheng, that area outside the village and the fields, than with the state of masimong. the cultivated area (see Chapter three). Naheng is mainly a place for herdboys and people out to gather exploitable resources such as plastering earth or medicinal roots. Although Basotho recognise soil erosion in both grazing areas and fields, this indirect examination of attitudes to grazing leads to the tentative conclusion that they do not identify grazing conditions or practices outside the field area as a principal cause of

the problem[1].

Conservation measures

A second indirect investigation of the Sesotho understanding of the causes of soil erosion may now be undertaken. This relates to farming practices and other human activities on the land as causes of its denudation. Attitudes to these matters are best surmised by questions about measures to combat or prevent erosion. Such enquiries were made in each of the questionnaire surveys to which reference is made in this chapter.

In the small survey of 1974 (Turner, 1975, 30), people in each community visited[2] were asked, "What has been done to protect the lands of this village?" It was found that "Most commonly recognised... (as an anti-erosion measure) is tree-planting... the conservation role of dams is also well recognised. Terraces and grass strips are, however, less well understood... " Many respondents, even those in a village where terraces had only recently been constructed, referred to them less readily than dams or trees when this question was asked, and found it difficult to explain their function.

Somewhat different perceptions are suggested by the results of the Thaba Bosiu Project's third General Evaluation Survey. In this questionnaire, respondents were asked: "What can be done to stop soil erosion and to protect the land?"

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1 After interviewing villagers working on conservation with the Thaba Bosiu Project at Ratau, Tumahole and other nearby villages, Hoeane (1977, 5) concluded that "...most interviewees did not seem to see the relation between over grazing and erosion."

2. Two villages were surveyed where conservation structures had been installed in colonial times, and one where extensive conservation works and construction of dams had recently been undertaken.

16.9 per cent could not suggest any measure. Among those who suggested a cure, terraces and grass strips were the most frequently mentioned (by 25.6 per cent of the total respondent population). 13.0 per cent mentioned trees, and a further 10.1 per cent suggested trees and terraces, with 6.2 per cent mentioning the construction of dams and terraces and 11.7 per cent making the more comprehensive suggestion of dams, trees and terraces. Two further questions were then asked to elicit information on Sesotho knowledge of conservation measures. The first stated: "The following are sometimes installed to prevent or stop erosion. How do they work? (a) Tree planting; (b) Dams; (c) Terraces and grass strips." The processed replies to this question, however, only give a crude and unsatisfactory index of understanding: it was reported that 79.6 per cent of the respondents suggested an explanation of the function of terraces and grass strips; 59.9 per cent of tree planting; and 57.0 per cent of dams. As was noted above, it is almost impossible in questionnaire enumeration to gain a full impression of the extent of knowledge and understanding of matters of this type. The second question was more straightforward: it simply asked, "How can you stop a donga from spreading?" Among the fixed response categories coded, the suggestion that the spread of a donga could not be halted was made by only 0.6 per cent of the respondents. The planting of grass and filling up with stones were the most commonly mentioned single method (32.6 per cent of the respondents); 15.5 per cent suggested water diversion, and a further 15.5 per cent suggested the joint implementation of these two measures.

Although differing in detail, the data presented so far

suggest that a substantial proportion of the rural population has a good idea of the measures which may be taken to prevent dongas and sheet erosion on or near the cultivated lands. In the June 1977 soil conservation survey two questions (Nos. 32 and 33, Appendix IV) were asked to elicit the extent of conservation knowledge .

The first of these followed the pattern of earlier questionnaires: "What can be done to prevent dongas?" The measures to which villagers most frequently referred are tabulated below. As it was impossible to code more than one measure mentioned by a respondent, the percentages sum to more than 100.

Table 7.15 Measures for the prevention of dongas

	%
Plant grass	48.6
Plant trees	42.5
Fill with rocks	17.4
Build walls and other rock structures	13.4
Construct diversion furrows	11.7
(Don't know	11.7)
Plant aloes	9.7
Build dams	7.7
Build waterways	6.5

(Source: June 1977 soil conservation survey, Q.32)

In answering this question respondents evidently concerned themselves more with the stabilisation of existing dongas than with the prevention of new ones. Their replies were probably influenced, especially in the foothill villages, by awareness of the measures undertaken by the Thaba Bosiu Project: gangs of villagers have been employed in a number of areas on such tasks

as collecting rocks, building structures in gullies, and planting grass.

The second question in the 1977 survey appealed to a more general 'conservation consciousness', asking : "What else can be done to improve the quality of the land?" The most common responses to this question are tabulated below.

Table 7.16 Other measures for improving the quality of the land

	%
Use fertiliser	64.2
Apply manure	27.2
(Don't know	17.1)
Plough better	13.0
Apply ash	10.6
Control grazing	6.1

(Source: June 1977 soil conservation survey, Q.33)

It is clear that respondents in the main considered the quality of arable land when answering this question. The overwhelming concern with the use of fertiliser in the Thaba Bosiu Project area is apparent. It is also interesting to note the significant proportion of the respondent population who refer to the application of manure and ash to the soil in the fields, although a much smaller fraction actually practise this. Those who spoke of ploughing better were in most cases referring to winter ploughing, although some were concerned with breaking up the soil more effectively to reduce the incidence of large clods, and with ploughing it more deeply.

The evidence presented in this section on conservation practices suggests that, where the problem is not the prevention

or stabilisation of actual gullies, Basotho are most concerned with arresting the declining productivity of their arable land through the application of fertiliser, manure and ash and other responsible farming practices. The problem of sheet erosion of arable land or of streams of rainwater running through fields of crops is not often referred to. Before offering concluding comments on Sesotho ideas about erosion and conservation, one other question in the soil conservation survey will be considered.

People and erosion

After the questions in the June 1977 survey about the existence of an erosion problem, its causes, and possible measures for combating it, the idea of human beings' responsibility for the deteriorating quality of the land was directly presented for the first time. Q.34 (Appendix IV) asked, "In what ways do people cause erosion and damage to the land?" The most common replies to this question are tabulated below.

Table 7.17 "In what ways do people cause erosion and damage to the land?"

	%
In no way	10.9
Don't know	35.6
Traffic along paths	12.6
Overstocking	8.1
Digging holes for plastering earth, etc.	6.9
Bad farming practices	6.1
Burning grass	5.3
Pulling sledges	4.5

(Source: June 1977 soil conservation survey, Q.34)

It is significant that one tenth of the respondents did not believe that people had any direct responsibility for soil erosion or other aspects of deteriorating land quality; the large numbers who could not think of any human influence effectively fall into this group also. It is interesting that two non-agricultural aspects of rural life should have been mentioned so often: traffic along paths from place to place, either by people on foot or horseback, by herds of livestock or by oxen pulling sledges; and the excavation of earth for plastering from holes. (These holes, likhatampi, are often cut away where a depth of soil is exposed, the horizon of the desired colour often being a little below the surface. The soil above collapses if excavation continues too far.) Reference is made to the large numbers of stock Basotho collectively attempt to maintain on a dwindling resource base, and to the associated practice of firing the grass. Damage caused by people in the fields themselves is not often mentioned.

It has already been noted that, although the data available cannot support detailed ranking of the importance in Sesotho perceptions of causes of erosion or of anti-erosion measures, it can safely be concluded that the physical processes of donga formation and stabilisation or prevention are well known. The limited reference by respondents to bad farming practices as a cause of erosion complements this conclusion. These agricultural errors relate to ploughing over field boundaries or grass strips or not breaking up clods of earth or ploughing deeply to promote moisture retention. Basotho almost without exception plough along the contour, however, and generally respect the contour strips which divide individual fields and

separate them from each other. Almost all fields are laid out along the contour and have been for some decades, largely as a result of the intensive conservation construction carried out by the colonial authorities.

As with their grazing, Basotho are not grossly irresponsible or negligent in their farming, partly because their agrarian landscape has incorporated certain basic conservation principles for some time. There are many instances of carelessness and negligence: numerous dongas have originated in flows of rain-water over terraces or grass strips weakened by grazing, damaged and not repaired; others have begun along the many paths caused by the intensive traffic of men and animals over the landscape. Inadequate ploughing is responsible for much soil loss in summer storms. Yet the implication in Basotho's responses to questionnaire enquiries - that direct agricultural malpractice is not a primary cause of erosion - may be supported. In part, erosion in Lesotho is a function of the people's attitude to the land and farming, which is in turn moulded by their position of economic subservience in the metropolitan economy of southern Africa. But primarily, the problem is a direct expression of the Basotho's place in the regional labour system. They are forced to be present on the land in large numbers, and to cultivate it for that part of their subsistence denied them by the metropolitan economy. In this desultory process of exploitation, large holdings of livestock are also required. It is therefore argued that conservation policy, like other aspects of government intervention in agriculture, is best conceived as a palliative for erosion and a subsidy towards this supplementary production, rather than as a remedy or a means to

autonomous prosperity.

Although from the conservation viewpoint there is room for some improvement in farming practice without radical alteration in the nature of Sesotho agriculture, and although a wider awareness of conservation measures such as tree-planting and donga prevention needs to be diffused, the question most relevant to the condition and future prospects of agriculture in Lesotho therefore concerns the preparedness of the rural people to make the additional investment of time and effort required for the stabilisation of the country's soil cover. An analysis of this matter must be grounded in the arguments just presented about the regional status of the Basotho on the land and their perception of that status. It will be attempted in the second half of this chapter with reference to the experience of the Thaba Bosiu Project in organising conservation at the village level. An historical sketch of government efforts in preventing soil erosion is first presented.

ACTION AGAINST EROSION: GOVERNMENT

Early measures

It has already been noted that government efforts to stem soil erosion began in 1902 (Report, 1902-3) when "experiments" were begun at various administrative centres. It was hoped "though without much confidence, that what is being done may serve as an object lesson to Basotho, and that they may with such means as are at their command, endeavour to deal with some of these dongas themselves" (Report, 1902-3, 8). Tree planting was an important element in this early work: some

5,000 were planted in the Maseru district in the report year 1902-3. These measures were on a small scale in the early years of the century, however. It was not until 1911 that an agricultural officer was appointed for the territory; one of his duties was listed as "the prevention of dongas and tree-planting", and it was noted that the erosion problem was increasing in gravity (Report, 1911-12, 6).

No innovatory measures were undertaken in the following 20 years: the planting of trees continued as a major policy of the administration. During 1912-13, for instance, a badly eroded area near Teyateyaneng was fenced in and planted with about 30,000 poplar and willow trees as an experiment in donga stabilisation (Report, 1912-13, 7). For the duration of the First World War, however, the policy of "tree planting and donga prevention" came to a complete halt; the territory's agricultural officer did not return from war service until 1921. One new policy recorded at this time was the dissemination of articles on donga prevention in Sesotho newspapers (Report, 1920-21, 9). But throughout the 1920s conservation work was on a derisory scale, the annual grant for donga prevention being £500, rising to £1500 in 1928. The first three agricultural demonstrators were engaged in 1924, and towards the end of the decade the expanding team laid increasing emphasis upon the need for conservation:

> "In spite of all this, however, there is no definite improvement to be reported, and fresh dongas are continually being formed and allowed to grow, without any effort on the part of the natives to combat their progress."
>
> (Report, 1929, 9)

The efforts of the administration were not strenuous during this period, either, as the size of the annual expenditure on

conservation indicates; this was despite the healthy financial position of the territory (in 1909 a loan of £80,000 was made from Basutoland funds to the Swaziland administration, and in 1919-20 the balance of trade in favour of Basutoland was £243,000).

Conservation after the Pim Report

The urgent recommendations of the Pim Report (1935, 184) opened a new era in Basutoland soil conservation which has been described elsewhere (Turner, 1975, 13-22) and will only be summarised here. The new awareness of the gravity of the problem which was manifested at this time was only partly the result of this report. Following the great drought of 1932-33, very heavy rains caused erosion to accelerate visibly: many dongas were enlarged and new ones formed. An intensive soil conservation programme was commenced in 1937, following a grant of £160,000 from the Colonial Development Fund. It should be noted that despite its earlier complacency the Basutoland administration was, in its establishment of an Engineering Section of the Department of Agriculture in 1937, one of the first governments in the world to take special institutional measures against the erosion problem.

The conservation work undertaken followed largely the lead set by the United States during the 1930s (Ayres, 1936; Collett 1937). In addition to greatly intensified tree-planting campaigns, mechanical structures were installed over most of the arable land in the territory. Dams were built along watercourses and in dongas; terraces, planted to grass or aloes, were constructed along the contour through villagers' fields, and grass strips were demarcated; diversion furrows were dug at the break of

slope between cultivated and steeper land; systems of inlets and waterways were created to train surface runoff along a less destructive course; and areas of high erosion risk along donga edges and elsewhere were fenced or beaconed off and prohibited to grazing. Heavy construction was performed where possible by machinery purchased out of the C.D.F. grant; a large contingent of Basotho labourers, working in groups of 50 to 100 under the supervision of European foremen, were also employed. Although conservation work was continued throughout the Second World War, and the task took rather longer than the ten years originally envisaged by the 1935 report (a further grant of £122,000 for conservation being received in 1950), Pim's recommendation for a system of anti-erosion structures had effectively been implemented over most of the territory's arable land by the middle 1950s. Indeed, a Department of Agriculture report as early as 1951 argued that

> "The first phase of agricultural betterment, ie. the stabilisation of arable soils, and pasture management, may now be said to be within a few years of completion"
> (A.R.[1], 1951, 12)

Direct participation by ordinary Basotho in this work was effectively limited to their employment as manual labourers. From the outset, however, the attitudes and reactions of land- and stock-holders had to be taken into account. In accordance with the development of close liaison between British and Basotho authorities in the administration of the territory, early consultations were held with the Paramount chief and other chiefs to seek the cooperation of the Basotho, and a "System of

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1 Department of Agriculture annual report.

Work" had to be devised whereby construction could be carried out on the land during the four or five months of the year when it was not occupied by crops. The assistance of the Sesotho courts was also enlisted at an early stage, however: again this derived naturally from the British policy of administration through 'traditional' structures of government where possible (Spence, 1964, 222-224). It was necessary to extend the system of grazing restrictions to the areas of high erosion risk which were beaconed off, and to encourage the prohibition of grass burning. It soon became apparent, moreover, that

> "Maintenance of terrace banks and furrows should be carried out by the Native land-occupiers thenselves, as it is impossible for thorough, regular inspection of the huge terrace systems already constructed, to be made by the Department."
>
> (A.R., 1938, 75)

Legislation to this effect, together with regulations requiring cooperation with government conservation work and even voluntary efforts by villagers to combat erosion on untreated land, was therefore appended to the Laws of Lerotholi by the King in 1941.

The enactment and attempted enforcement of regulations about conservation practices and maintenance of anti-erosion works was symptomatic of the inflexible and legalistic approach of the colonial administration in liaising with the Basotho against the problem. It was in a large degree unsuccessful. The upheaval created by the installation of contour banks and other conservation structures across village lands caused understandable resentment and suspicion in many quarters, and there were numerous instances of newly planted trees being immediately uprooted or of the deliberate ploughing up of contour strips. Despite an increase in the fines for contravention of conservation regulations

in 1951 intended in part to benefit them directly (A.R., 1951, 21), many local chiefs were negligent in bringing offenders to court. The appointment of a number of "maintenance men" from 1946 onwards was also relatively ineffective. The regrettable situation therefore arose in which

> "... the Departmental field staff have of necessity become involved in policing duties which are not strictly their responsibility. The feeling of the people towards the staff is reflected in their distrust of any attempt to introduce extension work and their unwillingness to accept the staff as the 'farmer's friend'." (A.R., 1957, 4)

The effectiveness of an extensive and much admired [1] system of soil conservation structures was thus to some extent vitiated by the Department of Agriculture's inadequate policy for ensuring participation and understanding by the Basotho [2]. It was recognised in 1951 that "... the Basotho are by and large apathetic..." and an attempt was made shortly afterwards to launch an improved public relations policy. This was enshrined in the Tebetebeng Pilot Project, planning for which began in that year (see Chapter eight).

As the decade went on and conservation activities began to decline (not least because of the exhaustion of the special funds for this purpose and the extreme antiquity of the remaining machinery), the concept of intensive public relations work and of consultation with local authorities and villagers themselves became more central to the administration's conservation policy. A reassessment was undertaken in 1958:

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1 Anonymous, 1944, 1950, Fitzgerald-Lee, 1951, Tristram, 1964.

2 It was compounded by a number of technical failings (Turner, 1975, 19).

> "This Department has adopted a new policy with regard to extension work and is placing greater emphasis on public relations... It has become apparent... that the solution of the erosion problem is not to be found in mechanical structures alone but in the reorganisation of the land use system... there has to be a complete union of sociological and technological procedures." (A.R., 1958, 11)

In the remainder of the colonial period up to 1966 an attempt was made to implement this policy, while actual construction was largely restricted to repair work and projects where the remaining machinery could easily be concentrated. During 1960, it was reported,

> "There has been a further move away from any form of restrictive measures and a genuine attempt on the part of departmental staff to indulge in true extension and advisory work. The main avenues of approach have been through the media of the Progressive Farmer Movement and the agricultural Credit Societies..." (A.R., 1960, 2)

This work was often hindered by the vehement criticisms of Basotho politicians; instances of this in the Taung Rehabilitation Scheme are described by Wallman (1969, 76-115).

Integrated village-based conservation

The most important development in conservation during the last years of colonial administration was the incorporation of the policy of closer cooperation with the people in a more integrated approach to land use, which was also more in keeping with the limited resources available:

> "In... areas which have received basic treatment it is now policy to produce a land-use plan for acceptance by the people. After acceptance in principle the detailed stages of implementation are then embarked upon. Such areas are called 'improvement areas' and it is in these areas that the Department now attempts to concentrate its attention." (A.R., 1963, 2)

An 'agro-ecological plan' for the territory was also drawn up in 1963.

Many difficulties were encountered by the colonial administration in the development of these early "improvement areas", but a precedent had been set for conservation policy after independence. This policy took some years to be consolidated, was then severely disrupted by the political events of 1970 (A.R., 1970, 26), and has since been much reinforced by the secondment of a number of staff from the U.S.Soil Survey and the training of Basotho personnel in the U.S.A., with the initiation of more detailed survey and land use planning procedures. But it has continued to centre around the recommendation of comprehensive conservation measures for the lands of individual villagers and the implementation of these measures in close liaison with the communities involved. Villagers have often provided much of the labour for this work. The implementation of the community-centred policy of conservation and land use planning has generally been articulated by committees of local people. The functioning of these committees in rural development will now be discussed.

Committees

The development of committee organisation Rural Basotho have organised themselves into committees for a number of purposes over the past 20 years, and several of these bodies, exhibiting differing degrees of vitality or decay, are to be found in most communities. The development of this mode of organisation nationally, or in any individual village community, is difficult to trace and is closely related to the intricacies of Lesotho's intense political activity at the national and local levels. Although in village society it is impossible to disentangle party sympathies from personal politics, the

influence of party political considerations in the organisation and implementation of rural development at this local level should not be underestimated. The committee is a familiar component in the idiom of both politics and development, and a discussion below of its use in soil conservation in the Thaba Bosiu Project area will offer an insight into Sesotho reactions to rural development generally.

In Lesotho as a whole, the first village committees to be established were of a political nature: they appeared in large numbers as political activity intensified prior to independence and the three principal parties organised support for themselves. Committees of party supporters were founded in the villages as the grass-roots element of national party structure. Following the first general elections of 1965 and the full independence of Lesotho in 1966, a more vigorous policy of rural development began to be implemented by the Basutoland National Party government and its Ministry of Community and Rural Development. It became common for villages to set up committees for the management of local development projects such as fish ponds, communal gardens and village water supplies, or for gathering funds and making applications to the government for the implementation of these schemes. In some cases these committees were freely elected; in many others the influence of the ruling party was strong, and membership was sometimes effectively limited to B.N.P. supporters. The government actively encouraged the establishment of village committees for development purposes, and went on to evolve a policy whereby

'Village Development Committees' [1] were to be set up in each community. These were to have an umbrella function of encouraging and coordinating local development initiatives, fostering the concept of communal self-help and liaising with the Ministry of Community and Rural Development through District Community Development Officers. Internal government directives after the Emergency of 1970 [2] made it clear that the Village Development Committees were to be made up of B.N.P. supporters elected by local party members in consultation with prominent government and party officials.

These arrangements for organising rural development through village committees never constituted a monolithic party structure, however. In some places villagers retained independent control of their development committees, either because there was very little B.N.P. support in the area or perhaps because of the presence of a powerful and charismatic chief. The actual distribution of development authority and initiative through the committee or outside it has varied from

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1 These committees should be distinguished from the confusingly named 'Development Committees' required to be set up in each village (or chief's land allocation area) under the 1973 Land Act. The purpose of the 'Development Committee' (generally known to villagers as the 'komiti ea kabo ea mobu' (land allocation committee)) is to advise the chief on all land allocation matters. Some of its members are elected at a village meeting; others are B.N.P. members appointed by the Ministry of Interior in Maseru or the local party organisation. As with the other committees discussed here, the actual role, effectiveness and political constitution of these bodies varies from place to place. For a useful discussion of rural committee organisation, see Feachem et al (in press).

2 After which the B.N.P. government remained in office.

village to village according to the subtle and fluid combination of factors controlling local politics. The position has, if anything, become more confusing in recent years, as, in the wake of a reduction in political tension nationally, the government relaxed its insistence on B.N.P. infiltration and support in these local bodies. But the tendency of villagers to organise themselves through committees for development and other purposes - such as burial insurance associations or religious organisations - has been reinforced. Where these bodies are communal in constitution and intent, the chief is usually involved in some capacity. He or she may chair its meetings or, if powerful, arrange for the constitution of committees as agents of chiefly authority. Alternatively the committee may simply meet at the chief's place.

The pitso At this point it is appropriate to refer to a much older institution for communal consultation and decision-making. This is the pitso or public meeting, called by the chief or on his or her authority. At these meetings a free debate may take place on the subject in question, any adult man having the right to participate and to criticise even the chief openly. (Women take part to a more limited extent, often sitting separately but sometimes voicing their opinions as vigorously as any man.) The pitso was adopted by the colonial administration for the purpose of calling people together for the explanation of administrative measures or, on occasion, for spectacular national gatherings at which tens of thousands of horsemen might congregate in Maseru to welcome a visiting dignitary. It continues to be widely used by the post-independence authorities, as well as retaining its older functions

within villages. Visiting development agents may arrange with a chief to call a pitso to explain new proposals or policies, and the institution has proved well suited to the recent trend towards consultation on development plans between government and people.

Conservation committees As has been described, conservation policy during the 1960s led to a concentration of effort in certain 'improvement areas' : one of the earliest of these was at Thaba Phatšoa. In the early years after independence [1], the Soil Conservation Division of the Ministry of Agriculture worked in these areas through consultation with the relevant chiefs and the calling of pitsos to explain to the people what was to be done. In some cases, however, conservation schemes spread over the areas of more than one chief, and it began (about 1971) to be expedient to refer to the then 'political' Village Development Committees in the implementation of conservation proposals. The establishment of separate soil conservation committees is a more recent development dating from about 1975.

In arranging the local organisation of conservation in an improvement area, which often incorporates the territory of more than one chief, the Soil Conservation Division's first step is to consult with the chief or chiefs and suggest the creation of committees in the villages affected. The exact number of committees to be created - whether each is to represent only one community or whether villages should combine for this purpose - is often left to the chief. These bodies have from five to seven

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[1] Information received from Mr G.Sakoane on this subject is gratefully acknowledged.

members, including the chief or headman; the rest of the committee are elected at a pitso, which is only sometimes attended by the representative of the Division. Political considerations are not now as relevant as they were in the constitution of these conservation committees (some schemes in the past have been rendered almost inoperative by inter-party dissension). It is made clear to the chiefs that these are not intended to be political committees. Although a few of these bodies continue to represent only one party, and the allegiance of members is well-known and evident in most cases, party politics no longer dominate the functioning of the conservation committees.

The committee organisation of one government conservation scheme may be used as an illustration. The Thaba Phatšoa scheme, which is designed around a catchment area, includes six villages in the areas of two important chiefs: the Principal Chief of Leribe and the Ward Chief of Tsikoane. Each village has a conservation committee with seven members. Three delegates from each, one of whom should be the chief or headman, go forward as members of the overall catchment committee (the Project Executive Committee). The latter body has received special training in conservation matters which it is supposed to pass on to the other members of the village committees. In 1977 executive and village conservation committees had also been set up in the areas of a number of other schemes: Kolonyama, Berea Majara, Berea Martins, Qalo, Morija-Matsieng, Tsoaing and Mt Moorosi. They would appear to be achieving some success in their role of liaison.

During the 1970s a number of area-based, internationally funded, integrated rural development projects have been established in the lowlands and foothills of Lesotho, and these also have made use of the familiar committee structure in their work on conservation and integrated village planning. Before the experience of the Thaba Bosiu Project with village committees is discussed, however, it is appropriate to consider some further enquiries made in the 1977 questionnaire survey on soil erosion and conservation. These related to Sesotho ideas on the ability of rural people to combat erosion, and on how this should be organised.

ACTION AGAINST EROSION: VILLAGERS

Competence and responsibilities

General ability to combat erosion For the villagers in the Thaba Bosiu Project area among whom this questionnaire survey was carried out, the implementation of soil conservation measures is a familiar process. As was indicated earlier in this chapter, most rural Basotho have an idea of what physical structures may be installed, and what other measures may be taken, to combat erosion (even if it is many years since colonial conservation teams worked on the lands of their particular village). They have an idea also of how this work is organised. The widespread diffusion of committee procedures in village life has been noted, and the idiom of cooperative liaison between the government and the villagers joined together for self-help is understood throughout the country. It is in this light that the questionnaire findings presented below must be considered. The organisational structures of conservation, with their

assumptions of what the people can do and what the government can do, have been imposed from outside. While their design still leaves much room for improvement, Basotho have not been blind to the benefits accruing to them from their implementation - even if these were limited to the payment of wages for manual labour and were accompanied by social and agrarian disruption - and it is not therefore surprising that they have attained a genuine currency in contemporary society. This makes it more than usually difficult to unravel the desire of the questionnaire respondent to tell the enumerator (a government representative) what he thinks he wants to hear, from the respondent's actual opinions. Although the nature of the interaction to date between government and villager in conservation ensures that much of the information from these questions will be what the government wants (or expects) to hear, it remains useful to consider the answers received.

The first question of this type in the June 1977 soil conservation survey was No.30 (see Appendix IV). This asked: "Can soil erosion be combated by: The people alone/ The people with help (specify whose help)/The people cannot combat it", there being three fixed categories of response. The replies are tabulated below.

Table 7.18 Ability of the Basotho to combat erosion

	% of respondents
With government help	70.4
With Project help	19.4
The Basotho alone	7.3
With the help of foreigners	1.6
Don't know	0.8

(Source: June 1977 soil conservation survey, Q.30)

No conclusion can be drawn from the more frequent reference to the government than to the Thaba Bosiu Project as a source of help for conservation, as many people quite naturally fail to diferentiate the two. The Thaba Bosiu Project took over all government agricultural extension services during its existence, and many people came to know it by the name 'Project'. More relevant is the small proportion of Basotho who believe that villagers can combat erosion on their own. The concept prevails of the government helping the people in conservation, or, more euphemistically, of government and people working together.

Ability to undertake specific conservation measures In two further questions to which reference has already been made (Nos. 32 and 33, Appendix IV) respondents were asked how each of the anti-donga and general improvement measures they mentioned could be implemented. Again, three fixed categories of response were used: "The people can do it alone/The people can do it with help (specify)/The people cannot do it." The way Basotho viewed their ability to undertake each of the operations they mentioned is shown in the two tables below.

Table 7.19 Measures for the prevention of dongas and ability to carry them out

(Unless otherwise stated, percentages indicate proportions of those respondents mentioning each measure)

	Basotho alone	Govt. help	Project help	Govt. Project help	% of all respondents mentioning each measure
	%	%	%	%	%
Plant trees	22.9	57.1	19.1	0.9	42.5
Fill with rocks	9.5	45.2	42.9	2.4	17.4
Plant grass	17.6	49.6	32.8	-	48.6
Plant aloes	16.7	25.0	58.3	-	9.7
Fill dongas	-	100.0	-	-	0.8
Walls & other structures	15.2	27.3	57.6	-	13.4
Diversion furrows	17.9	64.3	17.9	-	11.7
Dams	15.8	84.2	-	-	7.7
Waterways	12.5	25.0	62.5	-	6.5
Culverts	-	-	100.0	-	0.4
Grazing control	67.7	33.3	-	-	1.2
Prevent grass burning	100.0	-	-	-	0.4
Repair roads	-	100.0	-	-	1.2
Terraces	16.7	-	83.3	-	2.4

(Source June 1977 soil conservation survey, Q.32)

Table 7.20 Other measures for improving the quality of the land and ability to carry them out

(Unless otherwise stated, percentages indicate proportions of those respondents mentioning each measure)

	Basotho alone	Govt. help	Project help	% of all respondents mentioning each measure
	%	%	%	%
Fertiliser	25.3	40.5	34.2	64.2
Manure	37.3	44.8	17.9	27.2
Grazing control	80.0	6.7	13.3	6.1
Better ploughing	62.5	12.5	25.0	13.0

(Source: June 1977 soil conservation survey, Q.33)

These tables suggest that when respondents considered each measure individually, their previously overwhelming reference to external assistance became less unanimous. This is not surprising, since some conservation tasks are quite obviously within the capability of any able-bodied person. Moreover, these tasks seem less complex and daunting when considered one by one; when they are amalgamated into the single problem, "How can the Basotho combat soil erosion?", it is more tempting to opine that the help of the government is essential.

Significant numbers of respondents therefore believed that tree planting and grass planting could be carried out by the Basotho without assistance, while there were minorities who went on to suggest that even the construction of such installations as dams, terraces and waterways was not outside the abilities of the people. The control of grazing also fell into this category, but road construction or improvement was viewed as an area where a government contribution was essential. As was observed earlier in this chapter, the predominant concern of many Basotho in 'improving the quality of the land' relates to redressing the deteriorating condition of the soil, although they may not always practise the measures they suggest. It is not surprising that most of these measures, such as the application of fertiliser, ash and manure on the fields, were felt to be within the abilities of the Basotho alone. As a corollary it may be observed how this may reflect upon the Mosotho land-holder's perception of his economic position. Even if they lack the money to buy fertiliser, it is within the powers of the Basotho generally to go out and earn the money to buy it (Murray, 1976b, 130). This, it is suggested, is the reason why such a large minority of

respondents referred to the application of fertiliser as a measure they could undertake themselves.

Local responsibilities for organising conservation The responses tabulated above thus indicate a reflection, in the opinions Basotho offer on their ability to conserve and improve the land, of the allocation of ability assumed by conservation policy-makers in their design of anti-erosion work. Further enquiries in the questionnaire referred to the organisation of this work, and again it is not surprising to find that the articulated opinions of the Basotho mirror the actual structures of responsibility designed for them by external agencies. Q.38 (Appendix IV) asked, "Whose is the responsibility for fighting erosion and improving the land?"

Table 7.21 Responsibility for combating erosion and improving the land

	% of respondents
Chief	37.8
People	21.1
Chief and people	21.1

(Source: June 1977 soil conservation survey, Q.38)

A few people mentioned the government or the village conservation committee individually, but most of the other respondents referred to assorted combinations of chief, people, committee and government.

The Sesotho word here translated as 'people', sechaba, requires some comment in this context. It has holistic associations and refers to the people as a community. It may thus describe the people of a village with their rights to land

and grazing or their responsibilities as adults in local courts; or it may refer to the whole Basotho nation. The idea of Basotho nationhood is embodied by the term sechaba. The word therefore incorporates many of the dignified concepts of 'traditional' self-government fostered by the British and now current in those structures of development which postulate positive liaison between the government, the chief and the people. Sechaba is principally the last of the three elements just mentioned, but to some extent it incorporates them all. Although in many villages the real power may lie elsewhere, the office of the chief has been accorded an institutional power in this context as the link between the other elements in the process. It is for these reasons that Basotho ascribe responsibility for conservation to the chief and 'the people'. This is not a contradiction of the attitudes discussed earlier; in fact it also mirrors the structure of conservation administration as it functions today.

These arguments apply also to the answers given to the next question in the survey: "Who should organise conservation work in a village?"

Table 7.22 Responsibility for organising conservation work in a village

	% of respondents
Chief	76.0
Chief and committee	14.2
Committee	6.1

(Source: June 1977 soil conservation survey, Q.39)

Within the community, the authority of the chief's office is still generally recognised, with the committee being cast in an advisory

role. It has been noted, however, that the chief himself may not be the centre of real power in the village, although the official channels of authority and action pass through him. Many criticisms are voiced in Lesotho to the effect that the chiefs are no longer able to fulfil an effective role in local government and that the promotion of this role by the British was an error which should be remedied. Meanwhile, however, the Basotho clearly recognise the existing state of affairs as it affects the implementation of conservation work.

The contribution of a development project It has been shown that the government is generally expected to participate in soil conservation and that in the area of the Thaba Bosiu Project, the latter organisation is perceived as closely related with government. This is confirmed by the affirmative response of 88.6 per cent of those interviewed to Q.40 of the survey: "Should the Thaba Bosiu Project help in conservation work?" Only 1.2 per cent felt that it should not; the remaining 10.2 per cent replied that they did not know, presumably out of suspicion of the motives of such a question. It is more interesting to examine the responses as to what the Project should do in this regard, although the 25.7 per cent who simply mentioned the prevention of erosion do not offer very illuminating evidence:

Table 7.23 How the Project should help in conservation work

	% of respondents
Offer instruction and advice	28.0
Prevent erosion	25.7
Assist in provision of fertiliser	13.3
Provide agricultural machinery	7.8
Provide tractors	7.3
Don't know	4.6
Fill dongas	4.1
Provide construction machinery	3.7
Assist in ploughing	3.7

(Source: June 1977 soil conservation survey, Q.41)

Again the polite philosophy of constructive harmony between government (in this case the Project) and people is articulated by many respondents. A number of other replies, however, refer to the wide range of expectations the Project is expected to fulfil. It cannot be argued conclusively whether this reflects Basotho's concern for conservation as a broad programme to revitalise the soil through fertiliser and better ploughing, or whether it represents a weak identification of conservation as a separate task in the syndrome of 'improved farming' as perceived by rural people.

Conservation education Further enquiries in this questionnaire survey (Qs. 43-46, Appendix IV) dealt with the idea of educating rural people about erosion and conservation. This was felt to be the least satisfactory section of the survey, however, with regard to the problems of enumeration and response discussed earlier in this chapter. The overwhelming majority of respondents expressed the opinion that they needed to learn more about conservation: a reply which may be suspected as an unnecessarily subservient repetition of the belief of government

and aid projects that such education is needed. Although the answers given to the subsequent questions are of some interest and are tabulated in Appendix IV, they all derive from this unsatisfactory introduction to the subject and are not therefore discussed here: a more subtle approach to this problem needs to be designed, preferably in a separate investigation.

Self-help and payment for conservation labour It is more appropriate to conclude this section with a summary of the arguments about self-help which have emerged from the analysis of attitudes conducted in this chapter and in Chapter six. Some details of the system of employment for conservation labourers in the Thaba Bosiu Project area should first be noted. A large proportion of these workers - who are always drawn from the community affected by the construction - are women. In 1977 they were paid R9 per 15-day work period, supplemented by maize meal, oil and other food such as beans or peas, provided by the World Food Programme (see Jones, 1977, 204-207). One question in the soil conservation survey [1] (Q.42, Appendix IV) took up this last aspect of the system and enquired bluntly whether people should be paid for conservation work, (ie. labour on terraces, waterways, grass planting etc.):

Table 7.24 "Should the people be paid for conservation work?"

	% of respondents
Yes	64.6
No	26.0
Don't know	9.4

(Source: June 1977 soil conservation survey, Q.42)

[1] It should be noted that anti-erosion work was nearing completion in one of the villages (Ratau), was actively under way in a second (Tumahole) and had been applied for by a third (Thoteng).

The answers given by Basotho to this question encapsulate neatly the differing arguments which may be advanced about it. These are based upon two fundamental themes: that people should be paid because they are working; and that they should not be paid because they are working for their own benefit. With regard to the first argument, the reasons presented by those respondents who supported the payment of village conservation labourers may be considered:

Table 7.25 Why people should be paid for conservation work

	%
The people are hungry	43.0
It is work	17.7
To provide incentive	16.5
The people are poor	15.8
Nobody works for nothing	2.5
Other	3.2

(Source: June 1977 soil conservation survey, Q.42)

The importance in Sesotho life of employment for wages in cash or in kind was discussed in Chapter six with reference not only to material subsistence but to the dignity, self-respect and satisfaction which are felt to accrue from such employment. Such sentiments are shared by young and old and by men and women. The arguments for paying villagers to work on local conservation construction are therefore strong: not only do they need the food and the money, as large numbers of respondents pointed out, but the ethic of working for payment is universal and accepted as part of life: as other respondents argued, conservation labour "is work", which in Lesotho is a self-sufficient reason for it to be accompanied by payment.

A further group of respondents argued that payment should be offered in order to provide an incentive for villagers to undertake conservation work. It is true that by coming to a community, proposing conservation plans and, after local consultation, offering wages to those who labour on the implementation of these plans, an external agency offers an effective incentive for anti-erosion measures to be undertaken. Many conservation policy-makers working at present, however, deeply regret the first occasion when payment was made to workers on these schemes and the diffusion of expectations to which it gave rise. They argue that this provides the wrong type of incentive for the practice of soil conservation, and in this they appear to be supported by a quarter of the respondents interviewed in this survey. They stress that the short-term connotation of the "Food Aid labour" policy - that conservation is a job undertaken for payment received from external agencies - effectively does more harm than good; it undermines a more important feature of successful conservation practice, namely a long-term commitment to the maintenance of the structures which have been installed and the perpetuation of responsible farming and grazing systems. This aspect of conservation practice must be sustained by villagers themselves indefinitely, long after the government or other external agency has moved on to undertake construction elsewhere. There is clearly no prospect of villagers receiving remuneration for the long-term practice of conservation principles, and it is therefore argued that the payment of conservation labourers is detrimental to the condition of the soil in any but the short term.

Clearly a massive investment of extension time and effort

would now be required to alter the status quo and persuade villagers that they should work on conservation construction without payment. Although, as has been noted, Basotho have long practised certain elementary conservation principles such as contour ploughing between terraces or grass strips, their failure ever independently to organise themselves to build rock walls in dongas or construct waterways through fields - measures with which they have been familiar for some time - suggests that an infinitely greater extension effort will be necessary to diffuse the spirit of constructive conservation throughout the country. More immediately, however, these observations suggest a resolution of the argument over whether conservation labourers should be paid. This depends on current Sesotho perceptions of soil erosion as a problem - a matter treated earlier in this chapter, where it was argued that these perceptions in turn depend upon how Basotho view the place of farming in their society and economy.

Asked about their problems in farming, few Basotho refer to soil erosion, although further questioning reveals them to be well aware that the soil is being washed away and is declining in fertility, to know the different forms this deterioration takes and to know some ways in which it may be countered. Moreover, although the individual looks towards his holding of land as his ultimate security, the trend of Sesotho culture is no longer directed towards the soil. Its search for happiness and achievement elsewhere reveals an accurate assessment of the extent to which the soil offers ultimate security for the nation as a whole. The spirit of self-help in rural development has been diffused by the government and is in accord with the

strong sense of community felt by Basotho as a nation and, in many cases, as villagers. Where proposed improvements sustain the trend of Sesotho life-style and sympathies, as in the construction of roads or the laying of pipes for village water supplies, people often organise themselves to labour on these tasks without payment. The spirit does not exist in Lesotho, however, to sustain labour on conservation structures without payment, nor is it likely that it could successfully be inculcated by even the most determined extension programme.

For these reasons it is argued that the best course must be to continue the payment of soil conservation labourers . This does not augur well for the independent practice of conservation by the Basotho in the long term; but such a policy is symptomatic of the decline of subsistence agriculture in Lesotho, which no government action can arrest more than temporarily. This decline is a result of the Basotho's long term participation as an interdependent part of the southern African labour structure. As their continued dependence upon this role still makes it necessary for them to draw some proportion of their subsistence from the land, it must be an urgent priority for government to conserve the soil, and this cannot be achieved without the payment of wages to conservation workers. The soil must be retained, for once washed away it will never return; but there can be no illusion about the creation of a vigorous agricultural sector sustained by an active conservation spirit.

It has been argued that, regardless of the feasibility of long-term proposals for agriculture in Lesotho, everything possible

must be done to sustain farming in the short term through the conservation of the soil. As an illustration to conclude this chapter, some of the experiences of the Thaba Bosiu Project in organising village conservation work are now discussed.

Committees

Policy in the Thaba Bosiu Project area The spread of committee practice as a familiar mode of village organisation, and its promotion by the Soil Conservation Division of the Ministry of Agriculture, have already been described. The Thaba Bosiu Project for integrated rural development incorporated soil conservation as one of its principal elements, and has carried out intensive conservation activities in one part of its area. In this work the Project's policy was from the outset to involve villagers as much as possible, through committees elected by them.

The functions of these committees as envisaged by the Project were largely similar to those of the Ministry conservation committees outlined above. Their members were to liaise between the project staff and villagers at each stage of the planning and execution of village-based conservation measures; they were to explain the comprehensive proposals for land use and anti-erosion construction to the people, and consult with the Project on modifications to these plans; while work was being carried out on village lands they were to notify the Project of people's suggestions and complaints, and represent the Project policy to the villagers as required. After receiving instruction from the Project in conservation matters, they were to promote popular awareness of these in their

committees and, indeed, assist in spreading it to other areas; it was hoped that when the Project had withdrawn from the area they would take the responsibility for ensuring maintenance of the structures installed, and continue to function as guardians and improvers of their villages' lands. Chiefs were not to be members of the committees but the latter were to work in close consultation with them, always respecting, and sometimes representing, their authority and acting as the channel of communication between them and the Project. One function not apparently allocated to the Ministry's soil conservation committees concerned the hiring of labour for conservation work. In order to promote a greater sense of communal purpose and responsibility, the committees, rather than the Project, hired (and, if necessary, fired) the workers [1]. These bodies were thus elevated to some status within their communities as the theoretical source of conservation policy (no Project proposal being implemented without committee approval) and as the dispensers of paid employment for its execution.

Six villages The Project's conservation plans were designed according to land allocation areas, each centred upon one principal village and chief but including other communities within their boundaries. The six areas in which these plans were implemented, in order of creation of their respective committees, were: Ha Ratau (early 1974), Ha Khotso (April 1975), Ha Ngusa (May 1975), Ha Tumahole (late 1975), Ha Mosuoe (March 1976), and Ha Molengoane(mid-1976).

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1 Special dispensation was obtained from the Department of Labour to permit the constitution of these committees as wage employers.

The committees were elected at village pitsos which appear to have been fairly well attended. Each had six members, the majority of whom were men of middle age or older. Some women (whose average age was lower than that of the men) were elected: two in Mosuoe and three in Tumahole. Each committee chose a chairman from among their number. The membership of these bodies remained fairly constant from the time of their creation until 1977, although a few newer members had replaced persons found to be unsuitable or who left for other reasons. The villagers at Ratau were consulted at one stage about whether a new committee should be elected, but expressed satisfaction with the original members, who continue to serve.

Training and discussion The Project devoted a substantial effort to training these committees, transporting the members of each to its offices in Maseru shortly after their election and running short courses on conservation and the administration of construction work at a Farmer Training Centre conveniently located in the vicinity of the six villages. Following this initial training, a number of additional courses or seminars were arranged at which members of all the committees met to hear talks from Project officers and discuss with them and each other their problems and policies. Many of these debates were protracted and intense, and an effective process of consultation between the Project and the committees developed in this way. The gatherings at the Farmer Training Centre were rarely attended by all the members of any one committee, and some of course participated more vigorously than others, but the majority of those elected to conservation committees could be seen in these discussions to have developed a considerable interest,

responsibility and concern for their jobs.

The committees' performance Many problems were encountered by the Project in promoting the smooth functioning of this committee structure, and by committee members in the prosecution of their duties. The implementation of conservation plans on village lands constituted a substantial disruption for the community, and the responsibility of the committee in attempting to modulate these developments was a heavy amd complex one. For instance, a large demand for local labour suddenly arose and was administered by the committee; heavy earth-moving machinery created comprehensive systems of terraces, furrows and waterways through the fields, requiring the committee to negotiate with each of their holders; and in one case (Ratau) the allocation of holdings on a large part of the village lands was completely redistributed to create a pattern compatible with the new system of terraces, necessitating a long and intricate process of consultation and persuasion between committee members and the land-holders affected. In most cases however, these members have fulfilled their intermediary role with some determination, although sometimes disillusioned and often confused in the process.

One especially difficult issue was the employment of labour by committees. As has been noted, workers were hired for a three week period; at each hiring, committee members were advised not to take on more than one worker from each household, unless a shortage of labour necessitated this. In the more usual case when more people wanted work than could be offered it, the policy was to offer places to those who had not worked

in the previous period. Their role as employers placed some social strain on committee members, but their joint participation in the process minimised the possibility of favouritism. Not being paid for their work on the committee, members were free to hire themselves as workers, and usually did so. This led to contention about whether they too should rotate their periods of employment with other villagers, although it was eventually agreed that the advantages of their constant presence at the site of conservation works rendered this undesirable. A more difficult problem arose with the employment by the committee of foremen, one of whom was appointed for every 25 labourers, receiving R2.00 per day rather than R0.60 . The original policy was believed by some committees to allow all members automatically to become foremen, and there was some bitterness when the Project, for reasons of efficiency and economy, attempted to limit their numbers and evolve a clear policy for their hiring. It was eventually decided that the committee should recommend certain of its members for these posts for the approval of the Project field officer, and that the chief should be notified of the choice.

Chiefs As in other aspects of the organisation and administration of rural development at the village level, the role of the chief in relation to the conservation committee varied according to his or her individual characteristics. In one village the chief, a prominent politician who worked in Maseru, did not participate directly but was kept closely informed of the committe's activities. Two other chiefs often acted as the effective chairmen of committee meetings, commanding the respect and obedience of their members. Another

lent her authority to the committee and supported it staunchly when necessary, but rarely took an active part in its deliberations. At Ratau, however, the acting chief throughout this period, a young woman whose husband works on the mines, had a more difficult relationship with the committee. She was at first employed by it as a secretary (one or two people are hired along with each group of labourers to keep records of attendance and remuneration). The committee found her work unsatisfactory, however, and fired her. She later applied to work as an ordinary labourer, which she was allowed to do. After giving her a number of warnings about arriving late for work and taking days off, the committee eventually fired her a second time. Meanwhile she was often slack in her support of the committee, for instance when called upon to fine those who burnt grass or caused grazing damage. Relations subsequently improved, and she eventually became a proud and enthusiastic proponent of conservation policies in her village and elsewhere.

Interviews with committee members During July 1977, interviews were conducted with as many of the members of the six committees as could be contacted in the time available (27 in all). The transcripts of these interviews provide a graphic but lengthy illustration of the experiences of the committees and of many of the factors operative in the rural development of Lesotho. As they cannot adequately be summarised here and are most instructive in their raw form, these transcripts are presented separately in Appendix V. Members were asked how long they had served on the committee and why they thought they had been chosen for the job; what they conceived their duties and the duties of the committee as a whole to be; what they thought of the work

and what problems they had personally or as a group; and how they envisaged the role of the committee developing in the future. Although some of those interviewed did not offer very original or interesting replies, the impression was gained that most had a fair grasp of the reasons for their work and some dedication towards it. Apart from general liaison between Project and people, the committee members view their present function primarily as organisers and supervisors of construction labour. They are well aware of the importance of maintenance of the works installed and view this as the committee's main duty in the future, although many also have ideas of other improvements which it should try to bring about.

Commitment and future prospects It has been noted that committee members only receive wages if they work alongside other villagers on construction. This understandably gives them cause for frequent complaint, particularly in view of the unpopularity they commonly attract in the execution of their duties. Not only does their role as employers give scope for accusations of bias, but conscientious attempts to enforce grazing controls or prevent people using paths which cross waterways are often unwelcome. The important question of their motivation in these circumstances, particularly in the future, is therefore a difficult one. It was observed that the vigour of the committees studied and the visible commitment of their individual members varied with the intensity and duration of the conservation operations which had been carried out to date in their respective areas. At Ratau, where members had been actively involved in this work for some three years, it seemed reasonable to expect that after the withdrawal

of the Project they would attempt to ensure maintenance of the structures installed and to act as a pressure group for the improvement of the grazing control system and other conservation practices. In Mosuoe and Nqosa, however, where the Project's involvement had been more short-lived and intermittent, the committees were already meeting on only rare occasions. While individual members expressed the intention of working to maintain conservation structures in the future, the potential of these committees as pressure groups for conservation seemed minimal.

One possible mechanism for redistributing the motivation and vigour of certain committees through the whole of the area where the Project has worked on conservation, is the proposal of the members themselves - developed in a number of seminar meetings - of creating an area committee which would coordinate and encourage conservation practices (particularly a scheme for grazing control) over the lands of all six villages. Although many problems of cooperation and conflict would arise in the workings of such a committee, it is possible that it might succeed if offered some external assistance - from an able extension worker, for instance - on a permanent basis.

CONCLUSION

It is concluded from the examination which was made of the functioning of conservation committees in the Thaba Bosiu Project area that these bodies are a valuable and effective method of exploiting the communal spirit of the Basotho - which is still strong at the national and local levels - for the organisation

of rural development in the villages. Although the actions of these committees are cumbersome and often confused, proceeding in the midst of discussions and arguments so intricate and long-winded that any resolution often appears impossible, they have the overwhelming virtue of deriving directly from local villagers and involving ordinary people closely in the changes taking place - factors which are essential for any success in integrated rural development.

The study of Sesotho perceptions of erosion presented earlier in this chapter indicates, however, that Basotho are unlikely to create these bodies spontaneously in the way that they might for other development initiatives such as water supplies or road improvements. The eroded and deteriorating condition of the soil in Lesotho is an expression of the subservient economic status allowed to the people within the metropolitan structure, and the mode of exploitation which this position requires in an inadequate physical environment. The Basotho's relationship with the land is such that, until it is permitted to change by a fundamental social restructuring of the regional economy, it must receive permanent support from the government or other external sources. However valuable village committees may be in articulating soil conservation, they do not develop without an external stimulus and are unlikely to survive without some form of perpetual extension assistance.

In underlining the arguments advanced in this study of Sesotho farming, the discussion of soil conservation in this chapter has indicated the importance of government support in agriculture and described a relatively successful mode of

organisation in one area of policy. Attention will now be turned to other aspects of the Lesotho government's policy, in an attempt to illuminate further the condition and prospects of agriculture in the country.

CHAPTER EIGHT

GOVERNMENT INTERVENTION IN AGRICULTURE

Introduction

The question of soil erosion and conservation was examined at some length in Chapter seven in the belief that this provided a revealing illustration of the condition and prospects of agriculture in Lesotho - as assessed by both villagers and government. It also offered an opportunity to reinforce the arguments on Sesotho farming which have been developed in this study. Government's intervention in the agricultural sector is one of its most important commitments. It is impossible in one further chapter to present a full account of the many aspects of agricultural policy or to offer a detailed assessment of it. It is feasible, however, to discuss certain schemes and specific activities in order further to support the analysis of this sector proposed here, and to relate it to the actual formulation of policy. This study has stressed the value of appraising Sesotho knowledge and ideas in farming, and has derived certain conclusions from its preliminary attempts to do so. Its final aim must be to apply these conclusions to government policy. This task is best fulfilled by the examination both of schemes undertaken in the past, and of proposals currently being implemented.

In this necessarily brief discussion of certain instances of government intervention in agriculture there will therefore be two underlying themes. The first concerns the degree of popular participation and understanding which has been achieved

in the implementation of these policies. Although it may appear self-evident that the people affected by government activity in the agricultural sector ought to understand and support it, administrators in Lesotho have not always been guided by this principle. The concept of active participation by villagers in the execution of agricultural development policy has grown out of the realisation of the need for well-informed popular support, and is laudable not only because of the greater coherence and permanency imparted to rural development by the involvement of the people, but also because of the more constructive attitude it encourages: that people are capable of helping themselves and that the debilitating pressure of the nation's economic and social position in southern Africa can successfully be resisted. Although the analysis of soil conservation efforts in Chapter seven indicated some of the many problems arising from the close involvement of the people in policy formulation and execution, the importance of the popular contribution was clear. An assessment of its significance in other instances of agricultural policy must therefore be instrumental in any analysis of those activities.

The second theme to run through this chapter concerns the question of what it is and is not feasible to undertake in policy for Lesotho's agriculture. Attempts have been made earlier to describe the Mosotho villager's ideas on this question, during which a distinction became apparent between his recognition that the land has an essential, if supplementary contribution to make towards subsistence and security; and his suspicion that proposals for prosperous self-sufficiency from the soil are not optimal economic strategies for him to pursue, and may

very well fail even if he does so. This appraisal, which is also supported in this study by a consideration of Lesotho's physical and economic conditions, will be applied to the examples of government agricultural policy to be considered here.

Government intervention in Lesotho's agriculture has a long history. In the earliest years of the colonial administration district commissioners were distributing food crop and tree seeds free of charge (Reports,[1] 1878, 1886), agricultural shows were held (Report, 1895) and vigorous anti-locust campaigns were prosecuted (Report, 1896). More enthusiasm was generally shown for livestock than for crops - Arab stallions were imported, for instance (Report, 1894), and many mountain passes were dynamited to prevent the ingress of cattle carrying East Coast fever (Report, 1908). But from the appointment of the territory's first agricultural officer in 1911, efforts were made to improve the quality of crops grown, to foster improved farming practices on the Basotho and to increase production. As late as the 1940s, for instance, the administration hoped to make Basutoland southern Africa's principal production area for high protein content wheat (A.R., 1940, 4)[2]. The discussion of soil conservation policy in Chapter seven has already indicated, however, the extent to which government efforts in that sphere were effectively wasted by the inadequacies of policy, and this observation is true of much of the other work which has been undertaken. Although the activities to be reviewed here span only the last 25 years, a further important question arises

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1 Annual colonial reports

2 Annual reports of the Department of Agriculture.

from this examination of government policy. How much do those who formulate and implement it learn as they proceed? (Chakela, 1973, 13 - 14). Many criticisms have been voiced (most openly in the reports of the colonial administrators) about the apathy of the Basotho, their lack of interest or responsibility and their reluctance to innovate. A review of the efforts of successive administrations in this field might tempt one to make similar comments about those concerned. Many errors have been repeated on numerous occasions, and even today the learning process whereby agricultural policy is adjusted or redirected is at least as confused and hesitant as the decision-making of any land-holder.

One primary reason for the confusion and inability to learn from mistakes manifested by the history of agricultural development in Lesotho is of course that policy does not derive from a single person or decision-making body, nor even from a set of individuals or bodies displaying any stability over time. Both in the colonial period and since independence, senior government staff have generally held their posts for only a few years before either leaving the country or being transferred to other duties. There has been little continuity in personnel or ideas, with the result that much agricultural policy has been haphazard and inconsistent. Projects have been suddenly abandoned and others just as suddenly started; some have been neglected and many new ideas have been discussed and then forgotten. Mistakes have also been forgotten, and then repeated.

It is difficult in evaluating government activities in

agriculture to assess the extent to which their shortcomings are the result of inadequacies in policy itself, and to what extent they derive from the severe financial and infrastructural constraints upon its execution. The departments concerned have always lacked sufficient competent staff to put proposals into practice, and many plans have been curtailed or rendered ineffective by lack of funds. As government ambitions for improvement in this sector have expanded in recent years, such problems have been exacerbated.

Agriculture in Lesotho is now the subject of numerous multilateral aid operations, in addition to activities carried on by departments of the Ministry of Agriculture itself and projects being implemented by individual foreign governments. In all cases, however, it is the responsibility of central government and the Ministry of Agriculture to attempt to guide policy, to negotiate with the many donors working in this sector, to draw up proposals for funding by external agencies and to monitor their implementation. The planning and policy department responsible for these tasks is quite incapable of performing them adequately at present, suffering from a severe shortage of suitable staff. The time and resources for a proper review of policy are never available: proposals are hastily assembled for conferences of donors or cabinet meetings, and many plans for agricultural development are therefore conceived in confusion and relative ignorance.

The channels of authority within government have of course been restructured since Lesotho's independence. Two principal areas of change may be noted. Firstly, considerations of both

party and personal politics affect policy-making to a great extent, although they were by no means absent in the activities of the colonial administration[1]. The effect of the political events of 1970 upon the work of the Soil Conservation Division was noted in Chapter seven (Turner, 1975, 22). Although political tension has since been significantly reduced, some senior staff continue to protect party interests within the ministry, and ruling party sympathisers are more likely to find employment or promotion than supporters of the opposition. The reputation of some semi-autonomous rural development projects for more independent policies in this regard has sometimes led to friction with central government. Secondly, the transmission of new policy decisions from high levels (the Minister or the Cabinet) to the machinery of the Ministry of Agriculture has become more direct and often more urgent, particularly since the consolidation of political conditions in 1974. A more independent and vigorous attitude has been taken by government to rural development in this most recent period, requiring faster and more flexible action not only from Ministry staff but from donors. Although the new independence, urgency and directness of high-level decision-making are to be praised, the lower levels of government are at present unable to keep up with the detailed planning or implementation of policy. The danger is apparent that the resultant confusion and poor supervision may outweigh the benefits of this new vigour in agricultural administration.

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1 An important example is the authorities' reaction to Mr James Machobane's 'Farming System' in the 1950s. This significant vernacular initiative to improve agriculture, which is said to have been actively discouraged by the then Department of Agriculture, merits detailed analysis. Lack of information unfortunately precludes this here.

Although efforts are being made to ameliorate the conditions of agricultural policy-making, it is clear that the instances of government intervention to be considered here have suffered severely from the imperfections described. For the external observer of agricultural policy-making, as for the foreign student of rural villagers' behaviour, it is important to bear in mind the conditions in which decisions are taken and the perceived constraints which affect the choices made. An attempt must be made to do so in the brief case studies which follow.

Local-scale integrated projects

Tebetebeng Pilot Project, 1953 - 1960 The fact that a small-scale integrated rural development project operated in the Tebetebeng valley for seven years in the 1950s is not commonly known by those presently engaged in the planning and implementation of agricultural improvement proposals. Twenty-five years after the commencement of the Pilot Project it is interesting to review its operations and consider how much the circumstances and performance of such schemes have altered since.

The administrative machinery of the Pilot Project was developed when the colonial administration's cordial philosophy of government through the chiefs and traditional institutions was at its peak. It was moulded also by the new trend in agricultural policy at this time - discussed in the review of soil conservation in Chapter seven - towards consultation with the people and the encouragement of'community development' and self-help.[1] These cornerstones of the Pilot Project's design

[1] The influence of American thinking upon British colonial agricultural policy at this time is indicated by the intention that "... one complete watershed should be taken and turned into a miniature 'Tennessee Valley Authority' "(A.R., 1951,12).

may be illustrated by two quotations from the Department of Agriculture's annual reports.

> "... the chiefs, headmen and ad hoc committees... play an especially important part as intermediaries between the directing officials and people, in convincing and persuading the latter of the need for the various tasks. This promotes harmony between all concerned and stimulates the growth of embryonic organs of local government" (A.R., 1953, 18).

> "It will be stressed throughout that the function of the Pilot Project Team is to work with rather than for the people, and in its larger aspect the project will be an experiment in Community Development aimed at progress through the stimulation of local initiative and self-help." (A.R., 1952, 6; emphasis in original.)

As a'pilot project', the Tebetebeng scheme had a dual intention: to demonstrate the value of the integrated, intensive application of well-established conservation farming principles; and to experiment with new ideas whose value was less certain. For the purpose of relations with local land-holders, an attempt was therefore made to distinguish "between the reclamation and demonstration aspect of the scheme, and its more advanced, partly investigational aspect" (A.R., 1952, 14). All farmers in the area would be affected by the implementation of policies under the first head, whereas involvement in the more 'advanced' schemes was optional.

The principal activities of the project, which covered an arable area of 8,900 ha. and a further grazing area of 5,700 ha. in the foothills of the Berea district, affecting a population of about 8,000 were: the comprehensive installation of anti-erosion structures in the area, which had not been intensively treated before; tree-planting and dam construction; attempts at grazing control; the introduction of fish farming; attempts at irrigation ; the planting of fruit trees; the improvement of

local cattle; education on farming methods and the introduction of improved seed types; the sale of carts to replace sledges; the establishment of a Trading Account Store to supply agricultural inputs; a cooperative mechanised farming scheme; and miscellaneous attempts at 'community development', eg. the involvement of schoolchildren in tree- and grass-planting, the installation of village water supplies, and the promotion of Young Farmers' Clubs.

Substantial achievements were recorded in a number of these endeavours, some of which are still evident today. Large areas of land were carefully terraced, although many of the dams constructed have since silted up; several dongas in the area were successfully stabilised and more trees are to be seen there today than in most parts of Lesotho. So also are the descendants of the Brown Swiss cows which were introduced, and some farmers continue to grow the 'Kalahari Early Pearl' variety of maize provided by 'Piloto', as local residents still call it. One eminent villager suggested that widespread interest in the application of fertiliser and the use of tractors was caused by the Pilot Project. It is also argued in some quarters that the then schoolchildren of the area currently show a greater awareness of 'improved farming' principles, especially the value of fertiliser; but this cannot be proved.

One of the most important aspects of the Pilot Project's work was the attempt to establish cooperative mechanised farming. Those who wished to participate in this scheme were encouraged to form cooperative societies: four such groups were founded, each with a management committee, and members were charged for tractor

ploughing, planting, discing and harrowing. Their lands were not formally consolidated, although later negotiations stipulated that only adjacent lands forming blocks of over six hectares (15 acres) would be worked. Many problems were encountered with these cooperative schemes: the payment record was poor and participation in committee and society operations was often confused and half-hearted. Many members were reluctant to acknowledge their continuing responsibility for weeding the mechanised lands. Eventually the cooperatives deteriorated into ordinary tractor hire services, and the project's conclusion was of "... the need for a tractor hire service for individual farmers. Cooperatively run and organised tractor groups do not succeed in Basutoland." (A.R., 1959, 70)

Various Pilot Project efforts were negated by technical failure or lack of maintenance, eg. the irrigation area which was found to require drainage and the fish ponds which were difficult to net adequately. But the most significant problems were in the area of human relations. Despite the stated intention of working with the people, actual performance in this regard left much to be desired. Contractors were hired to come in and build simple brick structures around springs, for instance, and dig trenches for pipes. A more serious error was the insistence at an early stage by the European officer in charge that he knew best how to design an optimal timetable for agricultural operations over the season. Despite disagreement by local Basotho, his proposals were implemented on certain of the cooperatives' lands over which he had influence. Yield from these fields was very low that season, with the result that many Basotho were suspicious of all Pilot Project advice for some

years subsequently.

The key cause of the relative failure of the Tebetebeng scheme lay in the structure of cooperation and consultation envisaged by its British designers. This structure was grounded in the concept of close liasion with all levels of the chiefly hierarchy, and of equally orderly cooperation with the committees supposed to represent the people in the various aspects of project operations. It has already been indicated that the committees did not always proceed smoothly; many of their members were not certain of their function or of the purpose of the work in which they were engaged and consequently did not perform with the enthusiasm and efficiency that were anticipated. The idiom of committee organisation was not then as widespread as it is today. More serious, and less readily appreciated by the British, was the failure of the assorted chiefs and headmen in the area to function as an effective, clear-cut, single-minded structure of authority upon which the pilot project team might rely. The proposals for grazing control largely collapsed because of the failure of the chiefs and headmen concerned to agree on them. More generally, chiefs were slow to galvanise the people into action as the British desired. No effective system could therefore be developed for the local government of the area and the maintenance of the improvements achieved, after the withdrawal of the project team in 1960.

Despite the efforts by the team to intensify education and extension efforts in the last years of the project's life, communications between administration, chiefs and people remained so bad that much resentment was caused by the announcement of

impending closure. Petitions were handed in and numerous complaints made; indeed, it has been argued that by this time the project was beginning to regain some people's confidence after its poor public relations at the early stage, and that if it had been permitted to continue for two or three more years it would have achieved more lasting success. Not only did this not take place, however, but the nominal arrangements made transferring responsibility for the project to the Berea district authorities had no practical effect whatsoever. Since 1960 the pilot project area has received no more attention from agricultural staff than other parts of the country.

Because of the early stage at which the Tebetebeng Pilot Project was implemented, and because of its experimental purpose, it is not valid to attempt any criticism on the grounds of the feasibility or otherwise of the improvements it proposed. Had the negative lessons it taught been learned by those responsible for later policy, it might have been regarded as a qualified success. However, the problems of the local administration of rural development through chiefs and committees, of ensuring popular interest and participation and of maintenance of improved conditions after the withdrawal of development teams, continue to loom large today. Effectively, the solutions to these problems are no more apparent now than they were in 1960. This study of the condition of Sesotho farming attempts to indicate some reasons for this. The principal value of Tebetebeng as a case study is as a reminder of the length of time over which the same problems have been faced and the same mistakes have been made.

Conservation and irrigation at Thaba Phatšoa As was noted in Chapter seven, conservation policy in the last years of the colonial period began to concentrate upon specific 'improvement areas', in which integrated plans for conservation and rural development were implemented. Apart from Tebetebeng, one of the earliest of these was the Thaba Phatšoa scheme in Leribe district, which has now been receiving special attention from the Ministry of Agriculture for some 15 years. Because of its longevity and its association with several divisions of the Ministry, this scheme is worthy of some attention.

Early activities at Thaba Phatšoa were carried out by the Conservation Division. They centred around the division's identification of the area as suitable for an integrated plan (Youthed, 1963), and the consequent construction of the Lionel Collett Dam, an earth structure with a maximum height of 18 m. retaining 3,400m litres[1]. Other aspects of the integrated scheme during the 1960s included livestock improvement, afforestation, home economics and nutrition, public health campaigns and the improvement of the water supply for Hlotse camp (Anonymous, 1972). Irrigation was begun on a small scale in about 1963 by the Conservation Division, with the intention of demonstrating the benefits of the process. Particularly because various divisions of the Ministry have been involved at Thaba Phatšoa, it is difficult to elucidate details of operations there, but it would appear that consolidated irrigation was carried out from the beginning. The fields of the land-holders involved were measured, and their share of the irrigated block

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1 The area had already received the usual conservation treatment during the 1950s.

were proportioned accordingly. In the first year of the scheme the Conservation Division absorbed all irrigation, ploughing and other costs; in the second year the land-holders had to pay for ploughing, fertiliser and labour. Maize, wheat and beans were grown in rotation: harvesting was done by the land-holders themselves, with the crops being marketed either through a local cooperative or across the border at Ficksburg. In addition to the construction of the dam and irrigation works, the division also installed subsidiary reservoirs, fish ponds, and diversion structures to protect the irrigated areas from excess surface run-off. The ambitious intention of the Conservation Division was that after two years the local people would take over the running of the project, and it accordingly withdrew at the end of the second year of operations. Although the members of the scheme were organised into a committee, its operations were confused and ineffective; poor communications within the Department of Agriculture also prevented the scheme receiving the intended attention from local extension workers.

After a year's inaction, the Thaba Phatšoa scheme was therefore taken over in 1967 by the irrigation section of the Ministry of Agriculture's Crops Division. New financial backing was provided and a depreciation fund established, the intention being to create a commercially sound irrigation scheme which might again, in due course, be returned to the management of the right-holders. There were 11 of the latter on a block of 8.1 ha. in 1967-8; the scheme was subsequently expanded to 21.4 ha., the area per right-holder over the period 1967-8 to 1970-71 being 0.83 ha. (Anonymous, 1972).

A number of technical problems were recognised in the operation of the irrigated scheme to 1972. Some were tackled, notably the need to redesign the water channels twice before satisfactory functioning could be achieved. The economic appraisal of 1972 was not sanguine about the project's commercial prospects, however. It noted the returns to the right-holder per cropped acre, including money paid for labour on the scheme, of R22.95 per annum - clearly an unattractive sum. It indicated also that insufficient money from the government's 50 per cent share of the yields was being paid to the depreciation fund, and that the scheme was not therefore fundamentally sound. Right-holders, it argued, were reluctant to accept the need for payments to this depreciation fund, while the latter was effectively subsidising their profits from the scheme.

> "In fact the farmers were subsidised through the scheme's depreciation fund because of low yields... This matter of economical suicide is important to notice for dry land farming activities in the country, where the main asset, the land, is not maintained and repaired."
> (Anonymous, 1972, 11)

Inadequacies in the choice of crops and rotation systems were also noted. These have since been adjusted, and crops grown have recently included potatoes, vegetables, maize, beans, sunflowers and soy beans. Following full-time efforts by a European irrigation officer to render the scheme profitable, and improvements in Lesotho irrigation techniques generally, the financial prospects of the Thaba Phatšoa scheme have become considerably brighter, although the compaction effect of irrigation on some soils in the area has proved deleterious. As a demonstration of the limited but feasible conditions for profitable irrigated agriculture in Lesotho, the Thaba Phatšoa

scheme is a success. But its experience with human relations and administration has been more disturbing.

There have been a number of instances of inadequate public understanding of the operation at Thaba Phatšoa. These have occurred against a background of poor management which has marred almost all the long history of the scheme. An early internal progress report after the first withdrawal of the Conservation Division noted that "The scheme has not been successful, mainly through poor management and organisation." More recently the principal manifestations of low public awareness have not been in the irrigated area itself. Here people appear to have been closely involved and to have protested vigorously on some occasions about policies with which they disagreed. For instance, attempts to withdraw combine harvesters from the irrigated wheat, after they had worked there annually for some time, led to the stoning of Ministry officials and the erection of a fence around one machine by irate villagers. Attempts have recently been made to involve irrigation right-holders more closely by consulting with them on which crops are to be grown and by redesigning the distribution of yields from the scheme: right-holders were to be paid regularly through the season for the labour they contributed. Although this does not automatically render the irrigated area more profitable, the human relations aspect of the irrigation scheme per se, like its technical and economic prospects, appears now to be satisfactory. The principal drawbacks lie in the fact that the scheme must function as part of a larger ecological, social and administrative structure.

It was realised in the early 1970s that the dam at Thaba Phatšoa was silting up rapidly, and the Conservation Division was therefore called back to begin integrated conservation work on the catchment area above the irrigated project. The grass cover on these slopes was deteriorating fast: grass fires were frequent, grazing practices and stock numbers were causing damage; and maintenance of existing conservation structures was poor. Conservation officers in the catchment area have encountered widespread reluctance to cooperate with their proposals for better anti-erosion measures and for comprehensive improvements to local livestock and grazing policies. Operating separately from the Crops Division (later Irrigation Section) which runs the irrigated scheme and the Fisheries Section of the Livestock Division which supervises the fish ponds near these lands, the Conservation Division has faced a classic problem of trying to advocate conservation in a vacuum, divorced from any prospects of greater prosperity from the land. It has often met with hostility, as people in the catchment area believe the conservation work is solely intended to benefit the right-holders of the irrigation scheme. In this appraisal they have largely been correct.

Communication between the divisions of the Ministry concerned with Thaba Phatšoa has been poor, and the principal result of this has been the bad public image of the conservation efforts needed to sustain the irrigated scheme. The Conservation and Livestock divisions have failed to agree upon a programme of livestock improvement for the catchment area, which might render the proposals for grazing control acceptable. Similarly, the associated proposal, supported by many right-holders, that the irrigated land be sown to fodder crops such as lucerne, has been

submerged in an impasse between the Conservation and Crops divisions. An obvious first step would be the integration of the Irrigation Committee with the conservation Executive Committee (see Chapter seven): a number of people already serve on both, and irrigation right-holders apparently bring many of their problems to the conservation committee and conservation officials because of dissatisfaction with the Crops Division's management. There was no prospect of this merger in 1977, however.

Although intensive conservation education and payment of labourers for conservation activities have reduced the initial hostility of people in the catchment area, and lessened suspicion of the proposals for improved grazing control, it is clear that the Thaba Phatšoa scheme cannot succeed until a single administration is created and a programme of integrated benefits is devised which satisfies not only the irrigation right-holders but those in the catchment area whose cooperation is required to prevent siltation in the dam. Not only does this question of conservation operations raise doubts about the ease with which irrigation can be rendered profitable over the long term in Lesotho: it exemplifies the grave organisational shortcomings which must be overcome before a good living from the land can become feasible in the eyes of the rural people concerned. Again because of the disjointed administration of the project between these separate divisions of the Ministry, it is doubtful how much agricultural policy-makers in Lesotho have learnt about integrated rural development from the 15 years of work at Thaba Phatšoa, although advances have been made in the design and management of irrigation itself. It is not surprising in these

circumstances that Basotho have looked away from the land in their search for subsistence and prosperity.

Liphiring integrated project A small-scale scheme for increasing rural productivity through improved dryland farming and livestock development will now be examined. The Liphiring integrated project has a shorter and quieter history than the scheme at Thaba Phatšoa, although the background of area-based conservation work there dates back to the 1950s. Situated in the western part of Mohale's Hoek district, S.W.Lesotho, Liphiring is one of the driest parts of the country. It has suffered severe erosion, and the gravity of the widespread damage caused there was recognised during the colonial period with the establishment of the Taung reclamation scheme, which incorporated the area of the Liphiring project. (This scheme, which failed largely because of its insensitive grazing policy and other inadequacies in public relations, has been described in detail by Wallman (1969).) A second conservation scheme, confined largely to physical construction of terraces and contour banks, was carried out in the Liphiring area between 1968 and 1970.

The administration of the present Liphiring integrated scheme has suffered from such gross negligence that it is not easy to draw conclusions about the feasibility of the improvements it proposed. But certain observations may be made in the light of the project's experience between 1971 and 1977. Insufficient attention appears to have been paid to detail in the original design of the scheme, but the intention was to promote real prosperity for the people of Liphiring - through the integrated development of wheat growing and improved livestock production

- against a background of previous schemes where large investments had made little difference to their economic condition.

> "From the original project memorandum it can be inferred that the objectives were:-
>
> (a) To increase the cash income of the people with a consequent enhancement of their prosperity and an enrichment of their lives.
> (b) To initiate improved cropping patterns and practices on land suitable for arable farming.
> (c) To improve the quality of the livestock of the area and hence to provide a base for intensified livestock production.
> (d) To intensify on-going programmes of soil and water conservation."
>
> (Ministry of Agriculture, 1973,2-3)

The poor prospects of conservation unless integrated with measures to improve the productivity of the land seem to have been learnt from the previous experiences at Liphiring, whereas at Thaba Phatšoa this consideration does not receive adequate attention even today. Liphiring was a smaller project: the sum of R54,900 was obtained from Britain for its implementation over the financial years 1971/72 to 1973/74.

The scheme affected 220 families, controlling a total of 1,130 ha. of land, of which about 400 ha. were supposedly arable, although in parts the soil in the latter area was only a few centimetres deep over rock. An association was formed for participation in the project, which was joined at an early stage by 119 of the 220 households. (It is not clear whether the remaining 101 subsequently joined.) The lands of the member households were amalgamated into two blocks of 243 and 40 hectares respectively, forming the largest consolidated unit in the country. Most of this land was devoted to mechanised wheat farming, although some sorghum, beans and sunflowers were also cultivated. The livestock proposals, which were never implemented, involved the culling of the area's existing stock by about one

third and the creation of a scheme herd of improved cattle with the purchase of special breeding stock. Cattle would be fattened, additional beasts being bought from outside and later resold. Associated with these plans were proposals for planting fodder crops on some of the land outside the food crop area, and for redesigning the system of grazing on the remainder. Participants in the scheme were to share in its profits according to the acreage of land they had previously held and the number of livestock they had owned.

Central to the arable aspect of the Liphiring scheme was the cultivation of wheat. A primary assumption in the initial estimates of the project's profitability was that wheat yields would increase after a few years' cultivation, some time being required for the rehabilitation of the severely damaged soils. In fact, however, wheat yields have declined, to such an extent that even if the livestock section of the project were functioning wheat losses would absorb the projected profits from that section to give an overall loss for the scheme. Various proposals were put to the participants for payment to them of fixed sums per acre in compensation for the low returns of the scheme, but these have been rejected. Participants have preferred to be paid in wheat, and contingency funds have therefore been made available each year to permit the purchase of wheat from the scheme for redistribution to members, thus returning some money to the scheme's central credit fund. Experience at Liphiring to date has clearly demonstrated the infeasibility of profitable wheat cultivation in the area.

As has been noted, the proposals for livestock development were never carried out. Fierce resistance to the idea of culling herds was encountered; the people were particularly suspicious of such plans in view of the unfortunate performance of the earlier Taung scheme. Attempts were made to commence a fattening scheme with the construction of a small unit with pens, shelters and feeding installations, but no water supply was ever provided. Adequate piping was delivered but never laid, and has subsequently rotted. As with wheat cultivation, the Liphiring plans for livestock paid inadequate attention to the question of water supply.

Management of the Liphiring scheme has thus been so haphazard and apathetic that few conclusions can be reached about the feasibility of what was proposed beyond the clear indication of the unsuitability of wheat for the area. Public participation in the arable part of the scheme appears to have been half-hearted and confused. Their agreement to the idea of consolidation of their lands at the outset was probably due to the charismatic leadership of their ward chief; stern lectures were also delivered to them on occasions by the then Deputy Prime Minister, a prominent chief in southern Lesotho. The committee of the Liphiring association continued to exist, being instrumental in the functioning of the consolidated wheat operations. In 1977, when the scheme's original funds for the purpose were exhausted and the participants found they were no longer being offered credit by LEMA, the government's agricultural machinery unit, this committee travelled to Maseru to request action by the central authorities. As a result an appraisal team visited Liphiring. It suggested in its report that, in view of the poor

conditions for wheat, the scheme be converted entirely to a livestock operation, growing fodder and fattening animals. It recommended a careful study before concrete proposals were made, saying of the scheme to date that " Full consideration of participant goals and susceptibilities does not appear to have been made..." (Ministry of Agriculture, 1977, 5)

The degree of popular participation and understanding at Liphiring appears to have been sufficient to allow the consolidated wheat scheme to function until managerial and financial constraints caused its total breakdown, although the role of important chiefs, and the reluctance of nearly half the households in the area to join the association, suggest that local people were not entirely eager to participate. As the early estimates, later found to be highly optimistic, suggested that the annual return to each family - including profit from the livestock section - would be about R95, it can be seen that the activities at Liphiring could not be central to local people's subsistence, let alone prosperity. The livestock proposals were never put into action because of public hostility, and the implementation of any new livestock scheme, as suggested by the recent appraisal report, would be fraught with similar difficulties.

The principal question raised by Liphiring, however, concerns government's participation and understanding. Limited lessons appeared to have been learnt at the outset about the importance of integrating conservation with other activities, and to become apparent during the progress of the scheme about the unsuitability of wheat in the area. For most of its duration Liphiring has been almost totally ignored by the central

authorities, one extension agent remaining on site to manage the consolidated blocks. It has been suggested that the scheme was promoted in its early stages by one senior policy-maker, for personal reasons. Whatever the accuracy of this allegation, the subsequent failure of the authorities to provide adequate supervision for an established project - some funds for which remained unspent at the Treasury in 1977 - is particularly lamentable in view of the poor public relations enjoyed by previous agricultural development projects in the area. In the new climate of vigorous, wide-scale action by the central agricultural authorities, to which reference was made at the beginning of this chapter, it is increasingly easy for small, older schemes such as Liphiring to be overlooked. But in so doing government confirms rural Basotho's pessimism about the prospects of life on the land, and renders any further agricultural work doubly difficult.

"Join Hands Ratau" Analysis of the projects described so far in this chapter has concentrated more upon questions of public awareness and involvement and of government efficiency and concern, than upon the lessons about the feasibility of particular agricultural operations, although in each case useful conclusions on the latter subject have been indicated. In the last of the local-scale schemes to be considered, this emphasis will be reversed. It will be shown that during the first year's operation of the Ratau Cropland Scheme the principal lessons learnt concerned the feasibility of making farming pay in Lesotho.

The community of Ha Ratau in the area of the Thaba Bosiu Project was mentioned several times in Chapter seven in connection with soil conservation. It was noted that after some years of intensive conservation work - during which large systems of terraces, waterways and other structures were created, and an intricate process of land reallocation was implemented - Ratau became the show piece of the Thaba Bosiu Project. Numerous Basotho from other places within and outside the Project area were taken on tours of Ratau and its lands, as were teams of visiting aid officials and foreign dignitaries. Levels of public awareness and participation in development work there were higher than average, and although some problems were to be encountered in the implementation of the cropland scheme this was not to be a primary cause of concern.

Government (ie. Project) involvement at Ratau had also been intense for some time and continued to be so during the work on the cropland scheme in 1976-7: two expatriate officers of the project worked on it on a daily basis for much of the season. The idea of the scheme grew from this history of intensive conservation work at Ratau. The question of maintenance of conservation structures forms an important and intractable problem, as was noted in Chapter seven. In discussion with chiefs and conservation committees it became clear to the expatriate planning officer concerned that, particularly in view of the policy of paying conservation labourers, there could be no prospect of future voluntary labour on maintenance. Plans were therefore evolved for the commercial farming of some of Ratau's fallow lands, as an experiment in the creation of funds within a village for community benefit and, especially, conservation

maintenance. These plans took concrete form in the wake of the government's Winter Wheat Programme of 1976 (see below), when the Thaba Bosiu Project also felt the need for a new initiative towards greater productivity. The plan was to cultivate about 20 ha. of Ratau's fallow lands. Although much greater areas of fallow exist - often uncultivated because of land-holders' inability to do so (see Chapter five) - the area of the scheme was limited so as to prevent unwieldiness and protect the grazing function of fallow ground. As with conservation, theoretical responsibility for the scheme's operations was to be with an elected committee of villagers. This committee was to farm the scheme's land with a loan of R7,000 from the Thaba Bosiu Project, hiring a farm manager for day-to-day supervision. The loan was to be repaid over an unspecified number of years from the profits of the scheme. Fields for the scheme were to be rented by the committee for the sum of R15 per acre (R37 per hectare) for one season - a novel practice in view of Lesotho's land tenure system. They were to be as closely consolidated as possible in the reallocated area of Ratau's lands, where more conveniently shaped fields were laid out between terraces.

It was hoped that, by setting an annual rent of R15 per acre - estimated by the Project to be the average return to Basotho cultivators - the scheme would sift out profitable, efficient farmers (who would not find such a fee attractive) from less effective ones and those unable to cultivate at all. The overall productivity of Ratau's lands would thereby be increased, in addition to the provision of funds for the community's benefit. One lucrative cash crop, sweetcorn,

was identified as suitable for experiment. Other crops to be planted were ordinary and certified beans, fodder sorghum and some maize.

After initial soundings with the chieftainess at Ratau and the conservation committee, a pitso was called in June 1976 to discuss the scheme, which was entitled Tšoaranang ka Liatla Ha Ratau (Join Hands Ratau). News of the proposals had already leaked to certain Prominent Citizens [1] in the vicinity, from whom in turn there emanated rumours to the effect that, having already stolen some of Ratau's land for conservation, the Thaba Bosiu Project intended to take it all. The pitso was therefore well attended and somewhat hostile, but determined and lengthy explanations by Project officials led to a favourable conclusion for the scheme, after which very little opposition was encountered. A committee was elected, which hired a local 'progressive farmer' as farm manager. Subsequent applications to rent land to the scheme were far more than could be accepted, a total of 22 ha. in the desired area finally being taken over. As the rent was prepaid by the scheme, some land-holders were able to hire out some of their land and hire contractors to work the remainder, thereby ensuring that it was all cultivated rather than all fallow.

During the implementation of the scheme the cropland committee did not participate actively, whereas the farm manager worked long and vigorously and often rebuked the former for their negligence. The scheme's fields were therefore effectively worked by him and the two expatriate Project officers:

[1] Those who stood as ruling party candidates in the 1970 general election.

during a labour shortage over Christmas, the latter were even to be seen driving tractors. Despite these detrimental influences on the scheme's image as a communal venture, however, public trust remained at a satisfactory level. It increased substantially towards the end of the season when some yields had been seen to be produced; so that while the committee had to pay villagers to weed the fields, they worked voluntarily on the bean harvest.

10.1 ha. were planted with ordinary beans, 4.0 with certified seed beans (to be sold to the Project's Research Division), 3.4 with sweetcorn, 2.6 with fodder sorghum (to be sold to the Project's Livestock Division) and 1.4 with hybrid maize. A number of problems were encountered during the season. An early one concerned contractors for the mechanised operations (ploughing, planting, discing, spiking, harrowing and cultivating). Allegedly also because of local political machinations, tractor owners in the area united in demanding exorbitant rates from the scheme. A contractor was finally found in Maseru who brought equipment to Ratau and ploughed the land, but broke the terms of his agreement and refused to perform the other mechanised operations. Thereafter the committee hired Project equipment, which was again detrimental to the scheme's image. It had originally been anticipated that a contractor could be kept occupied for much of the season, but in actual conditions where he was needed, after ploughing, for one or two days each week, it was obvious that no contractor would be prepared to work.

The cropland scheme's lands were planted late, due partly to the unavailability in Lesotho or the Orange Free State of

the correct planter plates, which enforced improvisation. Over Christmas the crop suffered a dual problem. Sweetcorn in particular showed low resistance in the unseasonably dry conditions. Despite heavy preventive treatment, all crops were heavily attacked by cutworm and other pests. Intensive spraying failed to dislodge the maize stalk borer, and the European cob borer was widespread in the sweetcorn. Subsequently heavy rain caused a serious weed problem. At first a tractor-drawn cultivator could not be used on the waterlogged fields; when it was, it was ineffective against the particularly lush growth on the belt of fertiliser earlier applied immediately adjacent to the rows of crops. The yields of the scheme were therefore poor. 1.25 tons of sweetcorn were reaped from 3.4 ha. (This crop proved especially sensitive to day length, and much of the later-planted sweetcorn therefore gave no yield.) About three 90 kg bags per hectare of beans were harvested, and 12.4 bags per hectare of maize. Sorghum yielded better after heavy additional topdressing, giving 53.1 tons of green matter per hectare.

Further difficulties related to marketing. After lengthy disputes with the parastatal Produce Marketing Corporation, which has a monopoly on the export of certain crops, it was arranged to pack the scheme's sweetcorn and fly it to London as fresh produce. (The Project had, however, to underwrite the payments made for the cobs to the committee on consignment, as P.M.C. insisted that payment should only be made once it had received remittances from London after marketing.) The Project was able to bypass the P.M.C.'s unsatisfactory bean price of R27 per bag and sell them directly in South Africa at R40 per bag, owing to a recent political gesture by the Lesotho

government permitting Basotho bean growers to sell that season's crop direct to South African markets. As the P.M.C. did not handle maize at all, the Project had to negotiate a market, finally selling the crop to a Maseru mill. The scheme's sorghum was sold to the Project's Livestock Division.

The total expenditure of the cropland committee for the season from its funds of R7,000 was approximately R4,400; its income, including R800 reimbursed by the Project for losses on the sweetcorn experiment, was about R3,150, showing an overall loss of R1,250. Despite this it was suggested that the committee make a donation from its funds of some R2-300 to indicate the communal function of the scheme. Although the scheme had not been successful, popular opinion in Ratau continued to support it and it was hoped to repeat operations, with a more efficient committee and the same farm manager, in 1977/78. Perhaps the most disillusioned at the end of the first year were the two expatriate officers concerned. Many of the problems encountered were due to the experimental nature of the scheme: a good sweetcorn crop could reverse its financial fortunes with a profit of several thousand rand, for instance, and make feasible the more ambitious plans of extending such schemes to other villages, using the R7,000 loan as a rotating fund being continually repaid and re-lent, and perhaps developing a pool of equipment to overcome contractor difficulties. But the extension information upon which these officers based much of their agricultural strategy was found to be grossly inadequate, and they were astonished at the extent to which their crops were damaged by pests. Little was known about adequate rates of application of fertilisers, pesticides and herbicides for the various crops. Probably most

sobering for these expatriate officers, however, was their detailed exposure to the economics of growing and marketing dryland crops in Lesotho. They were embarrassed to consider the Mosotho's likely reaction, that if the white men were making losses on this, how could he be expected to make a living from it? They were willing to continue the Ratau experiment for another year, and hoped to implement numerous technical improvements, but could easily forsee another failure if these improvements were inadequate or a serious drought, for instance, reduced yields. They would then be ready to make known the conclusion from their experiment, that such dryland farming cannot be an economic proposition in Lesotho. It is apt to conclude with a direct quotation from one of these officers, recorded in an interview:

> "You can't go up to the farmer and say 'Do it properly' - we have done it properly, as far as you can, and we've failed... if we were commercial farmers we would be out of business, and I can see why they (Basotho) do not put R120 in an acre but just put R10... if they have a loss they lose R2, but more or less they will always break even or perhaps have a few rand on top of it - not that you can live off that... but at least they minimise their loss, and with R120 an acre it's a lot of money. And... perhaps after the second year we can really come to an evaluation of it and say... you just cannot do cropping in this country, not on marginal crops like these: you have to do something incredibly expensive to take the risk - not for wheat and maize and beans."

Large-scale projects

Three larger-scale examples of the Lesotho government's agricultural policies will now be considered. As it is impossible in the space available to offer a detailed analysis of these, comments on each are limited to their value as illustrations in the broader analysis of Sesotho farming put forward in this study. Because of the larger scale of these projects, it is not easy

without in-depth analysis to make useful comments about popular understanding and commitment as was attempted with the local-scale schemes already discussed. In the notes which follow the principal questions considered are the other priorities indicated at the beginning of this chapter: the feasibility of the operations undertaken and the conditions in which government attempts to implement them.

The Winter Wheat Programme, 1976 The first of these instances of large-scale government intervention in Sesotho farming, the winter wheat programme, is certainly of a very different sort from that just described in Ratau. In 1976 the Ministry of Agriculture undertook to sharecrop large acreages in the lowlands, growing winter wheat in a mechanised operation. This dramatic gesture had widespread repercussions, becoming well known throughout those areas it did not reach. To the extent that it galvanised Lesotho's agricultural sector, from land-holder to high Ministry official, it was successful. However the details of this policy's formulation and execution are heavily shrouded in both secrecy and confusion, and it is impossible to offer a clear analysis of what took place.

The idea of government sharecropping [1] with the people in this manner appears to have begun as a plan for experimental work over a number of years. In particular it was hoped that such a scheme for winter wheat would raise Lesotho's agricultural output by exploiting the large proportion of arable land fallow during that season. It was also intended that there should be an important demonstration effect, showing land-holders what

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[1] See Chapter five.

could be achieved in their fields in the correct circumstances. During 1976 political events intervened. There was a desire at top levels of government to demonstrate the vigour of Lesotho's agricultural sector on the tenth anniversary of independence. To this was added the upsurge of national feeling deriving from the Transkei border closure. The original plans for experimental mechanised sharecropping were therefore upgraded as the principal component of the government's Accelerated Programme to Reach Self Sufficiency [1].

The resultant ambitious scheme severely stretched the resources of the Ministry of Agriculture. The sharecropped wheat was grown mainly in areas close to the arterial north and south roads. Some alleged that this was for maximum demonstration effect to visiting dignitaries at the tenth anniversary celebrations; others that these were the parts most easily accessible to the government's tractors and combine harvesters [2]. The financial details of the sharecropping contracts made with field-holders willing to participate are not clear. It would appear, however, that the government supported all expenses - seed, ploughing, planting, discing, harrowing, application of fertiliser and combine harvesting - while retaining the right to choose the crop planted, which was wheat. The farmer, after harvest, was to pay the government R12.00 per acre (R30 per ha.), either in cash or in wheat. The crop was to be divided equally between government and land-holder, the latter making his R12.00 payment in kind from his half if he wished. The government undertook to purchase the land-

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1 Other notional elements of this programme included the development of horticulture, poultry, fisheries, and the improvement of livestock marketing.

2 The scheme was concentrated in four areas: Peka, Mafeteng, Khubetsoana and Rakolo.

holder's wheat share from him at the fixed rate [1] if desired. The land-holder was expected to be responsible for weeding, threshing and any other non-mechanised operations during the season of which he was capable; but many appeared on their lands only when the yield was being measured out after harvest.

The government lost heavily on this operation, while the farmers in most areas prospered from it. (As soon as the terms of the contract were known, in fact, land-holders eagerly applied to sharecrop with the government.) One of the reasons for the government's loss was its poor book-keeping. It is symptomatic of the chaotic administration of the scheme that even the Ministry's internal post facto analysis is inconsistent as to the figures involved. The clearest and most frequently repeated suggestion is that 3,114 ha. of winter wheat were involved and that a total loss of R300,000 - R360,000 was sustained. The original intention was that 12,000 ha. should be covered, and the figures of acreages actually involved in the season's consecutive operations (ploughing, discing, harrowing, planting, harvesting) show a steady decline, particularly as large areas were ploughed too late to be planted. This was complicated by the conflicting accounts of the Ministry's Accounts Division, which paid the local and expatriate contractors for the mechanised operations, and the Crops Division, which supposedly recorded in the field the areas worked. It appears that some contractors were paid for working large acreages they had not touched [2], and certain expatriate operators subsequently fled the country.

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1 R7.57 per 70 kg. bag

2 In some cases, land not included in the scheme was worked by the contractors.

In addition, rates of fertiliser application were excessive, as the reduction in acreage actually planted was not apparently considered when the originally estimated quantities of fertiliser were laid down. Seeding rates per acre were also exceeded. A total of R176,000 seems to have been lost in this way. These oversights stemmed principally from the shortage of competent staff for the project, even though the most elevated civil servants in the Ministry were called out at one stage to assist with harvesting, weighing and storage. Other problems concerned the government's lack of equipment, the shortage of storage space and the inadequate attention paid to the marketing question.

Public awareness and participation were not a problem in the winter wheat programme, although some land-holders were apathetic about contributing their labour. The principal difficulties were the feasibility of making mechanised, sharecropped wheat farming pay - the government's losses ranged from R11.69 to R81.27 per hectare - and of organising such an intricate and far-flung scheme with the resources at the government's command. As intended, the programme had a laudable effect upon popular opinion, but whether it could be made a success for the government itself remained unclear. Further experimentation with crop varieties, cultivation methods and timing are needed, free from the infrastructural constraints which hampered the 1976 operation. While the political, public relations impact of the winter cropping programme resounded in the country, confusion and dismay were the prevalent emotions in the central policy-making divisions of the Ministry of Agriculture. Political will demonstrated that more food could be grown in Lesotho (although whether it could be properly stored or marketed was another matter). The more sober

lesson was apparent, however, that the country's agriculture could not be rendered independent or profitable in this way. Very large investment in infrastructure would be required to enable the government to conduct such operations in an orderly manner and make money from its half of the yield. Lesotho requires sustenance from the soil, and the government must subsidise efforts to obtain it: but the prospects for an advance from subsidy to autonomous food production are poor.

The Thaba Bosiu Rural Development Project The work of the integrated rural development project in whose area research for this study was based cannot adequately be treated in this section, although certain of its operations have been noted in earlier chapters. It is possible only to indicate the nature of this broad-fronted intervention into Sesotho farming and relate it to the analysis of agriculture's prospects proposed here. The project ran from 1973 to 1977, covering an area of approximately 120,000 ha.in the lowlands and foothills of Maseru and Berea districts and a population of about 17,000 farm households. It was funded by a credit from the International Development Association (World Bank) of $5.6 million and by a grant of $ 2.8 million from the U.S.Agency for International Development (for soil conservation). Its original objectives were:

> "- to provide a more assured subsistence and to increase the income derived from crop and livestock production.
> - to control erosion and improve crop production and rural life and thus shift from subsistence to cash cropping.
> - to transform land-use patterns to enable the introduction of a permanent system of integrated farming combining rotational cropping with improved livestock production.
> - to provide data for the preparation of similar rural development projects in other areas."
>
> (Thaba Bosiu Rural Development Project, 1974, 1)

Early attempts to fulfil these laudable, if in places rather vague terms of reference quickly identified activities which were relatively simple and for which there was a ready demand. These concerned the removal of constraints upon the timely execution of farming operations by Basotho land-holders and their adoption of such measures as the application of fertiliser and the use of improved seed. Experiments with the provision of fertiliser for purchase in rural areas met with a particularly ready response. The core of the project's activities therefore developed around the concept of certain 'simple activities', which were spread from the central region (around Ratau) throughout the area. The principal of these 'simple activities' was the establishment and operation of a network of 'village distribution points' from which local people could purchase seed, fertiliser, implements and other items from a project agent (himself or herself a villager). Although a system of credit was developed to ease financial constraints upon satisfactory agricultural performance, this remained secondary to the sale of farm inputs for cash at easily accessible points: as has been noted, many villagers took advantage of these facilities, and were able to put down ready money for the purpose. In addition to the supply of farm inputs, the project also eased marketing conditions in its area by acting as an agent for the Produce Marketing Corporation. Facilities were also provided for the repair of basic farm implements such as ploughs and planters. These activities of the project had the great advantage of simplicity and of presenting no radical, innovatory shock to established social and agrarian systems, although the 'simple activities' package incorporated extension work about improved farming methods. As was noted at an early stage,

> "The simple and straight-forward nature of the simple activities element derived from the individual farmer's ability to take advantage of it, unhindered by the constraints of social custom or the need for cooperation with others."
> (Thaba Bosiu Rural Development Project, 1974, 3)

With its 'simple activities' of supplies and marketing, the Thaba Bosiu Project thus reinforced the subsistence role of Sesotho farming, making it easier for land-holders to produce staple crops successfully but with no intention of altering conditions drastically. (Its most innovatory effect in this aspect of its work was in promoting the spreading popularity of beans as a medium-value cash crop.) Judging by the alacrity with which villagers in all parts of the project area responded to the new opportunities thus provided, these activities may be considered successful.
The project also undertook a number of more ambitious schemes, which it termed 'complex activities'. These activities were more limited in areal extent, being primarily concentrated in the core region around Ratau. They were intended to promote the more radical transformations set out in the terms of reference, leading to cash cropping rather than subsistence farming, making livestock more productive, and, in short, rendering the land a base for prosperity.

One aspect of this work, soil conservation (and the subsequent attempt at Ratau to develop communal cash cropping on fallow land) has already been described. The project made great advances in conserving the soil in limited areas, and conducted a valuable experiment in the maintenance of the works installed. The cost of these achievements was high in both money and manpower, however. They were carried out in one of the least eroded parts of the project area, with no prospect of affecting the whole area in a period many times the project's lifespan; moreover, it could not

confidently be predicted that the conservation measures implemented would be of any lasting value. Heavy and permanent subsidies would be required for Lesotho's agriculture to be supported through this type of conservation. The performance of the project's livestock division was analagous in many respects: significant advances could be recorded in the diffusion of improved stock, particularly dairy cattle, through the project area. The principal concern at the end of the project period was, however, to secure continued funding for the perpetuation and development of these programmes.

With the introduction of asparagus as a commercial crop in Lesotho, the establishment of a cannery and the creation of a marketing system for the produce, the project made its most significant contribution in attempting to help Basotho prosper from their land. Very few land-holders were actually affected: the scheme was at a preliminary stage, and prospective growers had to satisfy demanding criteria relating to soil type on their land and the amount of labour they could provide for cultivation. But the yields available were of an order more comparable with the income a villager may obtain by migrating to work. Again funds were needed to continue and expand the asparagus scheme, but because of the stringent requirements for successful production, and the difficulties of marketing such a luxury food, the crop is unlikely to achieve mass diffusion.

This superficial scanning of the activities of the Thaba Bosiu Project suggests that its achievements confirm the analysis of Sesotho farming offered in this study. Whereas heavily subsidised efforts may be made to conserve the land or transform

its productive potential, the only activities likely to achieve success at an acceptable cost are those which make it easier for the mass of rural land-holders to obtain some supplementary subsistence from their fields. This, it is argued, is the most profitable way for Lesotho's agriculture to be subsidised - and subsidised it must be, until Basotho are able to participate more fully in their regional economy.

The Basic Agricultural Services Programme Arguments of the sort just advanced underlay the design of the Basic Agricultural Services Programme. This project was intended to operate throughout the lowlands and foothills of Lesotho and to develop the experience and achievements of the principal area-based rural development projects of the early and mid-1970s (Khomokhoana (previously Leribe Pilot Project), Senqu River and Thaba Bosiu). In laying out a network of supplies and marketing services to assist land-holders throughout the lowlands and foothills, the design of B.A.S.P. relied principally on the structures evolved by the Thaba Bosiu Project, although, as will be noted, there were certain significant deviations. When research for this study was carried out in 1977, B.A.S.P. was still at the planning stages. Although it had been intended to commence as the Thaba Bosiu Project reached its end, absorbing numbers of the latter's staff, administrative confusion prevented this and it seemed unlikely that the scheme would run, as originally planned, from 1977/78 to 1981/2 (after which all services were to have been installed and ready for routine operation in perpetuity).

The principal argument influencing the design of B.A.S.P.[1] was that underlying this study: that farming provides only a supplementary means of subsistence to most rural households, migrant labour being the mainstay of the economy - but that it is still necessary to support the domestic agricultural sector and render it more productive wherever possible. Drawing upon the success of the 'simple activities' of the Thaba Bosiu Project and other schemes in furthering these aims, the B.A.S.P. plans therefore proposed a network of railhead stores (at Maseru and Maputsoe, near Ficksburg), area centres and local distribution points for the supply of farm inputs; a better local road system for the same purpose; the development of the Produce Marketing Corporation's functions; the harmonisation of agricultural extension methods; and the provision of repair facilities and of credit arrangements, at a total cost estimated in 1976 at R23m.

The experience of the Thaba Bosiu Project suggests that B.A.S.P. should succeed in terms of popular participation and understanding and with regard to the physical and economic feasibility of its proposed operations. Questions of administration rendered its prospects less bright in the early stages which were observed, however. It has been noted that the preliminary stages of the scheme were closely intertwined with the final run-down of the Thaba Bosiu Project. It was also noted, at the beginning of this chapter, that 'political' relations between central government's Ministry of Agriculture and the semi-autonomous area-based projects were often poor.

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1 Unfortunately none of the relevant planning or appraisal documents may be quoted directly.

This was the case for much of the history of the Thaba Bosiu Project. Attempts to ensure a smooth transfer from the latter into the beginnings of B.A.S.P. were therefore vitiated not only by the usual inefficiency and confusion prevailing in the understaffed central administrative and planning sections of the Ministry, but by the many animosities existing between the two organisations. A second factor affecting this instance of government intervention in farming related not only to the Ministry's institutional shortcomings but also to those of the principal donor, the World Bank. While much of the Lesotho government's planning for B.A.S.P. was inadequate and ill-organised, the visiting appraisal teams of the Bank were unable adequately to consider local realities, or to adjust for the government failings already described, in the proposals and evaluations they made.

Confusion and acrimony were particularly caused over two issues. The first concerned local details of the network of supply points. The Thaba Bosiu Project had used village stores operated by locally resident agents on a daily basis. This system had been found successful and was incorporated in the B.A.S.P. proposals. The Bank, however, drawing upon much less substantial experience in the Khomokhoana project area, rewrote these proposals so that a sparser network of lock-up stores should be used. These were to be opened on one or two days a week by officials visiting from a central point; on these days villagers were to travel to the nearest store to obtain their inputs. Some bitterness was caused among local policy-makers when this almost untested method was imposed. The second issue related to the method of

funding for B.A.S.P. For administrative purposes the B.A.S.P. proposal document divided the affected area into six blocks, each of which was to have its own management. The Lesotho Government was strongly in favour of a system of block funding, whereby separate donors (various western nations, the E.E.C and the World Bank) were to finance all operations within their particular blocks (there was also to be a central administrative unit in Maseru). The Bank, on the other hand, much preferred a system of component financing, whereby each donor would be responsible for one element of the total B.A.S.P. structure, eg. roads or credit facilities. It was argued that functional financing would be more beneficial in the long term for the country's administrative infrastructure, to which it was replied that at the present stage of governmental organisation it was quite impossible to implement such a system. An interesting example of the new, draconian vigour with which the high authorities of government operate in Lesotho was afforded by the resolution of this disagreement. The Lesotho Government confidentially agreed with a number of prospective donors that B.A.S.P. should be supported on the basis of block funding. It then confounded a visiting World Bank appraisal mission with a fait accompli, essentially insisting that the Bank should also participate on these terms or withdraw completely. The Bank, which is not well used to such high-handed treatment, eventually complied.

A somewhat distant excursion has been undertaken in this section from the daily realities of Sesotho farming, in order to give some illustration of the complex and often confused conditions in which agricultural policy - even when feasible

and popularly acceptable - is made and implemented. The B.A.S.P. scheme is laudable in the realism of its ambitions and the accuracy of its assumptions about government's most productive mode of intervention in the agricultural sector. But in its preliminary stages it has already indicated some of the difficulties that may be encountered in administering such a policy of subsidising Sesotho farming. These are some of the costs of Lesotho's artificial economic condition.

Conclusion

In this chapter certain aspects of government's recent agricultural policy in Lesotho have been described in an attempt to complement the analysis of Sesotho farming made earlier. Three themes have in particular been examined, giving rise to some simple conclusions.

It has been shown that the elementary consideration of public understanding has rarely received adequate attention, and that several schemes have been vitiated by their failure to promote constructive participation by local people. Many factors have been responsible for these failings: in some cases policy-makers have not considered this important question properly, in others they have been aware of its significance but have not been able to make proper allowance for it because of infrastructural or institutional shortcomings - or have been confounded in their attempts to involve the people by the latter's reluctance to see their proposals as feasible. As the fundamental tenet of this study is the need to appraise vernacular knowledge and attitudes in agricultural development, one clear conclusion of this chapter must be to underline the importance

of involving Basotho closely at every stage of the work. It has been shown how intricate, expensive and often frustrating such a task can be. But it is essential if any progress is to be made.

Comments have been made in this chapter about the feasibility of the various schemes and policies examined, from which a second simple conclusion repeatedly emerged. To support an attempt to develop arable farming in Lesotho must be an ecologically and economically artificial operation, necessitated by the structure of the regional economy of which the Basotho nation is part. In these circumstances policy should restrict its ambitions largely to the maintenance of the land's supplementary subsistence function, although taking advantage where possible of the limited opportunities for greater prosperity from such activities as irrigated commercial vegetable growing and the cultivation of such high value cash crops as asparagus. In working towards this modest (though immensely demanding) goal, policy will have the invaluable advantage of being in harmony with vernacular perceptions of the role of the land in Lesotho. This will render it much easier to attain the necessary public involvement, as outlined above.

A third series of comments at various stages in this chapter have related to the structures, organisation and competence of agricultural administration in Lesotho. As was noted at the outset, it is important to distinguish those failings in implemented policy due to inadequate design, and those deriving from infrastructural shortcomings such as poor ministerial organisation, political animosities between the various branches

of government involved, or simple shortage of competent staff. Many problems remain to be overcome in this regard, and it does not befit the external academic observer to suggest how this may be done. But it must be pointed out that the damage caused by poor organisation or inadequate staffing often outweighs the benefits of whatever action is actually taken; and that while vigorous and direct action in agricultural policy is urgently needed, care must be taken to ensure that government has the institutional capacity to sustain such a mode of operation.

CHAPTER NINE

CONCLUSION

This study of the condition and prospects of Sesotho farming has three guiding themes. The first concerns the need, in examining specific aspects of an African economy, to consider their broad historical, cultural and economic context. In the case of Lesotho, particular attention must thus be paid to the nation's relationship with the southern African economic structure. The second theme concerns the value of assessing vernacular knowledge and attitudes, and the need continually to bear in mind the problems inherent in discussing material manifestations of another culture's world-view. Thirdly, this study seeks to be relevant to the requirements of policy-makers in rural development, not only by making specific reference to conditions in Lesotho, but also by indicating methods whereby academic enquiry can in general be directed to such practical ends.

The context of Sesotho farming In recognising the need to render studies of African economy more perceptive by the inclusion of some broad contextual analysis, the present study is informed by one fundamental argument. No adequate analysis of Sesotho farming can be constrained by the nation's artificial political boundaries. The importance of examining Lesotho conditions in their southern African context would appear obvious: yet it has rarely been afforded adequate recognition. Culturally, economically and politically the Basotho play an integral role in the regional structure which supports South Africa. They participate in its metropolitan economy as fully

as they are permitted by a labour policy which requires their contribution as much as they depend upon it themselves, but which is designed to serve interests other than their own. This labour structure, moulded and sustained by a larger political disposition representing the same distribution of power and prosperity, ensures that Basotho workers remain rooted in a rural existence and depend in part upon their agricultural production there. Only recently has the average remuneration of migrant workers approached a subsistence level, reducing the dependence of a minority of Basotho households upon their farming output. But for several decades the nation's declining food production has been inadequate for domestic needs (let alone the export for which Basutoland was once renowned). This has rendered migration to wage employment not merely desirable, but necessary, there being no significant potential for non-agricultural production inside Lesotho. The inaccuracy of identifying the Basotho nation as a peasantry has been demonstrated; rather it should be considered a proletariat so disadvantaged that it must continue to till the soil for some part of its sustenance. These are the axioms from which any study of conditions and prospects in Lesotho should proceed.

Many of these comments are applicable also to other peripheral areas of the southern African region. An analogous mode of analysis, proceeding from the same basic principles, is required for such areas - whether, like Botswana and Swaziland, their dependence has been glossed over by long-standing international frontiers, or whether, as is the case with the Bantustans within the Republic, their position in the regional structure is

less subtly masked. As a result of the rapid economic changes occurring in these peripheries - particularly Botswana, Lesotho and Swaziland, into which substantial sums of foreign aid are now being channelled - the condition and prospects of many aspects of domestic economy need to be assessed. It has been demonstrated in the case of Sesotho farming that a fundamental re-examination of the cultural, historical and economic context is necessary if a proper understanding of that sector is to be developed and applied to plans for the future. Similar careful attention must be paid to other peripheral economies in the region if their prospects are accurately to be appraised.

Analyses of African economy in southern Africa which proceed with this awareness of the integration of core and periphery are confronted with the necessity of extensive preliminary groundwork. The present study has illustrated the mode of response believed to be necessary. Such an analysis presents a challenging task. The breadth of the investigation demanded is great, and the scope for inaccuracy or superficiality is equally comprehensive. Particularly where the relevant economic historiography is scanty or unsatisfactory, there is an intricate array of detail to be assessed. At this stage an effort must be made accurately to identify the principal lineaments of the subject and its context, and to relate this analysis to existing ideas and policies. It is not appropriate to dwell at length here upon the problems and advantages of the multidisciplinary or a-disciplinary approach. But the necessity of adopting some such approach in the appraisal of an African economy seems clear.

The vernacular viewpoint The second theme guiding this study concerns the need, in an analysis of the condition and prospects of an African economy, to investigate vernacular knowledge about, and attitudes towards, the productive activities in question. It is not necessary to argue at length in favour of placing the desires and opinions of rural people at the centre of development policy or of making an appreciation of these germane to studies of economic conditions. Awareness of these considerations is now fairly widespread, although the instances of their successful incorporation into academic or administrative endeavours are still regrettably few. It is important, however, to comment upon the research methods employed to this end during the present investigation.

Much attention has been paid in this study to what the Basotho know about farming and what they think about it. This is a mode of investigation which, as has just been noted, is as yet inadequately rehearsed. It is in the nature of preliminary research of the type undertaken that the analysis presented should raise as many questions as it answers. A number of explanatory comments have therefore already been made, at various points in the discussion, about the methods of research which were employed.

Central to the year of fieldwork upon which this study is based was a period of nine months spent resident in a Lesotho village, during which an effort was made to master as much Sesotho as could be absorbed in that time and to make as many enquiries as possible directly in the vernacular. Exposure through the Sesotho language to all aspects of village and

farming life had so revealing an effect that, despite the inevitable inadequacies of speech and understanding remaining at the end of this short period, an additional dimension may be said to have been imparted to the investigation by this vernacular approach. The foreign researcher in African society enjoys a number of incidental advantages if he has some command of the vernacular. For example, a greater trust and respect often accrue to him, and it is obviously more convenient not to have to conduct every enquiry through an interpreter. More significantly, he also becomes aware of the many discontinuities between his own perceptions of culture and economy, as expressed in his language, and those of the society he is studying, as expressed in their language.

It is not possible here to attempt a digression into the philosophy of language or an examination of the complex interrelations between culture and behaviour where two cultures meet as they do in Lesotho. But it is stressed that without direct personal experience of vernacular modes of expression the foreign student of change in Africa is severely hindered in his understanding of the processes of interaction with which he is concerned. However halting and imperfect his command of the language in question, a serious attempt to learn and use it in the field must raise for him questions of which he would otherwise be unaware. An attempt has been made in this study to offer some instances of these. The analysis of Sesotho culture and its relation to western society in Chapter six, for example, noted many of the normative elements which structure Basotho's lives. An exposition of these often required the examination of single words or phrases and the way they are used.

A similar approach was germane to the analysis of Sesotho perceptions of landscape and of erosion as discussed in Chapters three and seven respectively. It is beyond the power of any dictionary or interpreter to convey such insights to the student: he must arrive at them through personal experience. If the arguments consequently presented are to claim any validity, however, it is of course necessary for him to check his own vernacular experiences against those of others better informed and more experienced than himself.

It is sometimes argued that attempts to conduct research in the vernacular, if the latter is not perfect, can so hinder the processes of communication and understanding as to render the researcher's ideas dangerously distorted and superficial. This is too pessimistic a view. The approach is likely to overwhelm the foreign student with his awareness of the differences between the cultures interacting in the development process, and to render his recommendations for smoothing that process less assured than they might otherwise be. But if his analysis is unable to draw upon that extra dimension of information and experience provided by intensive research in the vernacular, it is unlikely to make a significant contribution to our understanding of the meeting of cultures in question.

Another large body of information, presented at various points in this study, derives from questionnaire surveys. Although the questionnaire is an invaluable tool for the collection of data in the social sciences, the numerous comments in the discussion of results from those administered during this research suggest the care with which the method must be employed.

The use of questionnaires in this investigation was informed by an awareness of the difficulties of cross-cultural communication to which reference has already been made. Unless the researcher proceeds in this cautious manner, it is argued, the translation and administration of questionnaires in a foreign language cannot be a valid practice. Detailed observations in the preceding chapters about the responses to individual questions in these surveys indicate that even the most apparently foolproof, factual enquiry may be capable of misinterpretation when translated and administered in the field by an enumerator.

In questionnaire research, as with direct observation and enquiry, some fluency in the vernacular on the part of the student is invaluable. The researcher should be able to check on the translation of his questionnaire, to monitor interviews as they proceed and to identify discontinuities and filters in the conversion of his enquiry into the question perceived by the respondent. He should be aware of where his bored enumerators cut corners in their questioning and should, indeed, be able to administer some questionnaires himself in order to assess the effective quality and quantity of the real information collected. Only if this detailed monitoring is possible, it is argued, and if the researcher is then prepared to comment on flaws in his survey work, can questionnaire surveying in a foreign language become a fully respectable method in academic or administrative enquiries.

The scope of the present investigation is broad, and in many of its aspects the analysis can only be a preliminary one. The discussion in preceding chapters has incorporated comments

on detailed Sesotho farming practice, on Basotho's ideas on life and agriculture, on cultural and economic context, on specific problems and development policies and on the interaction between government and people inherent in these. Rarely has it been possible to make extended reference to existing work on these questions, however, and the tentative comments presented point to the need for further enquiry in numerous different directions. It is hoped that this work offers a preliminary illustration of the methods which might be more commonly adopted and of the range of contextual questions which need to be considered in any investigation of African economy. While it provides a salutary lesson about the complexity and interdependence of the issues in question, so comprehensive a study can never be an entirely satisfactory venture. It is necessary at this stage, but it is to be hoped that the study of these questions will be developed much further in future work.

Relevance to rural development The third theme which has guided both the design of fieldwork and the analysis of the information gathered concerns how research of this kind can best be related to the practical requirements of policy in rural development. It was for this reason that field research was carried out in close liaison with a rural development project. In conditions such as those of Lesotho, neither government nor external agencies can easily undertake wide-ranging assessments of agriculture and its context of the sort to which this preliminary study has pointed. That must remain primarily an area for academic endeavour, but it is to be hoped that such research will in fact be designed with the specific requirements and problems of development policy in mind. In examining the

design and implementation of policy it is not difficult for academic workers to identify areas of ignorance and discontinuities in communication to whose redress they can contribute. On the other hand, government and the external aid agencies should express a more active interest in the need for such questions to be answered. In the urgency of contemporary Third World development it is usually more convenient to proceed on the assumption that enough is known for some action to be taken. In most cases, however - as with the question of the condition and role of agriculture in Lesotho - governments should at least make time to consider how many of their assumptions in development planning in fact need to be tested.

More central to the day-to-day concerns and capabilities of governments and external aid agencies in the planning and evaluation of development policy is the question of appraising vernacular knowledge and attitudes and, wherever possible, incorporating them. It will be noted from Appendix III that respondents to the attitude survey administered in the Thaba Bosiu Project area were asked two questions about what activities they would like the Project to undertake, and which of its operations they felt it should abandon. As these enquiries were made in the final year of the Project's life, it was ironic that this should apparently have been the first occasion when a large sample of the people affected were asked their opinion on these matters. The planning and evaluation of rural development tend too often to be confined to material requirements and performance which can easily be calibrated. More attention should be paid by policy-makers not only to the relevance of vernacular technology in rural development

(particularly, of course, in farming) but also to the regular appraisal of popular attitudes to policy, both as it is planned and as it is implemented. In the discussion presented here about soil conservation and other agricultural operations carried out in Lesotho, an attempt has been made to indicate something of the value of this approach and to show ways in which it might be adopted.

As was noted in the introduction to this study, one further argument may be adduced to support the commitment of academic investigations in rural Africa to promoting understanding in the design and implementation of development policy. This concerns the right of the foreign researcher to intrude at all into the lives of villagers or the activities of government officials, when the former's previous experiences of such alien intrusion have in all probability been largely unfavourable and the latter are increasingly unwilling to accommodate interference or criticism in their internal affairs. This is not the place to discuss the ethics of formal academic studies by the rich of the poor. It should be apparent to all who undertake such research, however, that they should attempt to make their work of some value to the societies from which they draw their intellectual - and, indirectly, material - sustenance.

APPENDIX I

Ha Khoeli census

A Sesotho version of the questionnaire reproduced below was administered in all the households of the Ha Khoeli sub-villages shown on Figure 4.1 (back pocket).

THABA BOSIU PROJECT

CENSUS, HA KHOELI

JUNE, 1977

The purpose of this census is to help Stephen Turner in his studies of the life of the Basotho and their farming. You are respectfully requested to assist in this work by answering all the following questions carefully and correctly. The information will be used only by Mr Turner and will not be given to any other person. Thank you.

1. Name of head of household _____

2. Date _____

3. Respondent is

	x
Head of household	
Other household member	
Non household member	

4. Location of household

	x
Ha Theko	
Mohalenyane	
Moreneng	
Tebellong	
Ha Motseki	

1. HOUSEHOLD COMPOSITION

Name 1	Relationship to household head 2	Age 3	Sex 4	Marital Status 5	Residential Status 6	Last journey outside Lesotho (date, place) 7	Purpose 8	Last journey to Maseru (date) 9
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

RELATIONSHIP TO HEAD

a Household head
b Spouse of head
c Child of head/spouse
d Spouse of child of head/spouse
e Grandchild of head/spouse
f Other relatives of head/spouse
g Full time hired worker
h Other person not related to head/spouse

MARITAL STATUS

1. Never married
2. Married
3. Deserted
4. Divorced
5. Separated
6. Widowed

RESIDENTIAL STATUS

1. Resident
2. Absent outside Lesotho: Work
3. " " " : Other reasons
4. Absent in Lesotho: Work
5. " " : School
6 " " : Other reasons

PURPOSE OF JOURNEY

1. Work
2. Visiting
3. Medical
4. Buying
5. Govt. offices
6. Other

EMPLOYMENT

6. Members of household in wage employment now or any time in 1976 or 1977:

	1 Relationship to household head and household no. (see q.5)	2 Employment (code*, Employer, Place)	3 Date job started	4 Date job left	5 Full time x	6 Type of work x	7 Wages	8 Free food x	9 Free lodging x
1									
2									
3									
4									
5									
6									

EMPLOYMENT 1. Mine 2. Railways 3. Construction 4. Other company 5. Farm 6. Other (RSA)
7. Govt. of Lesotho (specify) 8. Shop 9 Other (Lesotho)

7. Is jeela sold by the household?

	x		x
Yes		No	

IF YES

8. How often? _____

9 Other money-earning activities:

1 Relationship to household head and household no.	2 Activity	3 All day Every day x	4 Some time Every day x	5 Some time Every week x	6 Income per month
1					
2					
3					

10. Can read Sesotho

	x		x
Yes		No	

IF YES

11. What do you read

DO NOT OFFER

	Most often x	Sometimes x
Newspapers		
Agricultural		
Religious		
Books		
Other (specify)		

12. Is there a record player in the household (in working order)?

	x		x
Yes		No	

13. Is there a radio in the household (in working order)?

	x		x
Yes		No	

IF YES

14. What is your favourite programme?

DO NOT OFFER

	x
News	
Music	
Stories, plays	
Agricultural	
Domestic	
Religious	
Other (specify)	

15. Membership of committees and associations

Household no. (see q.5)	Relationship to household head (see q.5)	
		Land Allocation Committee
		Soil Conservation Committee
		Communal Garden Committee
		Burial Association
		Credit Union
		Farmers' Association
		Setsokofelu Association
		Religious (specify)
		Other (specify)

16. Religion of household head:

	x
Catholic	
Church of Lesotho	
Anglican	
Zionist etc.	
Other (specify)	
Does not go to church	

17. Visits for medical attention by household members this year:

Household no. (see q.5)	Illness	Hospital x	Place	Clinic x	Place	Sesotho Doctor x	Place	Cost (excluding transport)	The visit helped the patient x
1									
2									
3									
4									
5									

18. Participation by household members in court cases, 1976 and 1977.

Household no. (see q.5)	Month and Year	Accuser x	Accused x	Witness x	He *Khoeli* x	Treasury x	Type of case
1							
2							
3							
4							
5							

19. Has the household held any feast for the ancestors in 1976 or 1977?

	x		x
Yes		No	

IF YES

20. Purpose of Feast | What was slaughtered

21. Was any animal slaughtered for any other reason in 1976 or 1977?

Yes	x	No	x

IF YES

22. Reason for slaughter | What was slaughtered

23. Has the household received or made any bohali payment in 1976 or 1977?

Yes	x	No	x

IF YES

Received		Paid	
No.	Type	No	Type

25. Are there any places in the area of Ha *Khoeli* where you are afraid to go?

Yes	x	No	x

IF YES

26. Place | Reason for fear

27. Are the farmers of *Ha Khoeli* helped by an extension agent?

Yes	x	No	x	Don't know	x

IF YES

28. What is his name?_____

29. Do you know the location of a Project VDP?

	x		x
Yes (specify		No	

_____

30. Can you name 2 types of fertiliser?

	x		x
Yes (specify		No	

_____

_____

31. Have you attended a Project pitso this year?

	x		x
Yes		No	

IF YES

32. What was discussed?_____

33. Have you ever been to the Farmer Training Centre at Ha Matelo?

	x		x
Yes		No	

IF YES

34. What was the subject?_____

35. What do you think is the best number of children for a man and a woman to have?

Boys_____ Girls_____

36. Buildings in the household:

	Roof		Walls			Carpet
	Metal roof x	Grass roof x	Stone x	Sticks/mud x	Bricks x	x
Rondavel/ Mohlongoa-fatše						
Square/ Rectangular						

37. How many of the following does the household have:

	x
Table	
Chairs (European)	
Bed	
Sideboard	
Wardrobe	
Primus	
Paraffin Lamp	

	x
Door/Coal stove	
Large metal washing basin	
Large oil drum	
Grain basket	

38. What is your favourite type of food?_____

39. What is your favourite type of meat?

	×
Cow	
Sheep	
Goat	
Horse	
Pig	
Chicken	
Other (specify)	

_____

40. Do you ever eat the meat of wild animals?

Yes (specify)	×	No	×

_____

41. What is your favourite type of vegetable?_____

42. How often is milk consumed in the household?

	×
Every day	
Some days each week	
Rarely	

43. How often are eggs eaten in the household?

	×
Every day	
Some days each week	
Rarely	

44. Should women eat eggs?

Yes	×	No	×	Don't know	×

45. Name your favourite type of the following crops:

Crop	Type	Reason
Maize		
Mabele		
Wheat		
Beans		

46. How does the household grind grain:

	N/A ×	By hand ×	Mill (Ha *Lechesa*) ×	Mill (Ha *Joel*) ×
Maize				
Wheat				

47. Number of agricultural implements (in working order) owned by household:

	x
Plough	
Yoke	
Planter	
Hoe	
Spade	
Cultivator	
Harrow	
Sledge	
Scotch Cart	
Tractor	
Car/Truck	
Axe	

48. Which implement would you most like to obtain next?_____

CULTIVATION:

49. Fields held by household:

	Field 1	Field 2	Field 3	Field 4	Field 5	Field 6
1 Location						
2 Soil type						
3 Area (Basotho acres)						
4 Best field held x						

50. Summer 1975-6: Household Fields

	Field 1	Field 2	Field 3	Field 4	Field 5	Field 6
1 Field ploughed previous winter x						
2 Crop planted						
3 Variety of crop						
4 Source of seed						
5 Tractor (TER)/Oxen (KHO)						
6 Fertiliser applied x						
7 Type of fertiliser						
8 No. packets fertiliser						
9 Source of fertiliser						
10 Harrowed x						
11 Planter used x						
12 Cultivator used x						
13 No. times weeded by hand						
14 Insecticide applied x						
15 Source of insecticide						
16 Moupelle x						
17 Other traditional medicines (e.g. rain)						
18 Total yield (bags/tins)						
19 Amount sold (not joala)						
20 Amount consumed (including sold as joala)						
21 Amount kept						
22 Level of yield						
23 Field sharecropped x						
24 Sharecropped with whom						
25 Residence of sharecropping partner						
26 Yield division Holder: Partner						

CODES FOR QUESTIONS 50 - 54

Source

1. Previous harvest
2. Given by relative
3. Given by friend
4. Bought at VDP
5. Bought at Project, Ha *Joel*
6. Bought at Project, elsewhere
7. Bought Ha *Lechesa*
8. Bought Ha *Joel*
9. Bought elsewhere
10. Credit, Project
11. Credit, elsewhere
12. Other

Level of yield

1. High
2. Average
3. Low/nil: drought
4. " " : heavy rain
5. " " : weeds
6. " " : late planting
7. " " : hail
8. " " : insects
9. " " : poor soil
10. " " : rats
11. " " : frost
12. " " : theft
13. " " : stock damage
14. " " : Other

Inputs

MOH Plough
KHO Cattle (number)
EKH Harrow
POL Planter
SEK Cultivator
HLA Weeding labour (no.)
LEH Ploughing labour (no.)
KOT Harvest labour (no.)
PEO Seed
MON Fertiliser
POL Threshing labour
LIJ Food for workers

51. Summer 1975-6: Sharecropping on non-household fields

	Field 1	Field 2	Field 3	Field 4	Field 5	Field 6
1 Name of field holder						
2 Residence of field holder						
3 Crop planted						
4 Variety of crop						
5 Yield (bags/tins)						
6 Yield division holder: Partner						

52. Winter 1976: Household Fields

		Field 1	Field 2	Field 3	Field 4	Field 5	Field 6
1 Date ploughed							
2 Crop planted							
3 Variety of crop							
4 Source of seed							
5 Tractor (TOR)/Oxen (KHO)							
6 Fertiliser applied							
7 Type of fertiliser							
8 No. packets fertiliser							
9 Source of fertiliser							
10 Harrowed (Date)	x						
11 Planter used	x						
12 Cultivator used (Date)	x						
13 No. times weeded by hand							
14 Insecticide applied	x						
15 Source of insecticide							
16 Naupella	x						
17 Other traditional medicines (e.g. rain)							
18 Total yield (bags/tins)							
19 Amount sold							
20 Amount consumed							

52. Winter 1976: Household Fields (Cont.)

	Field 1	Field 2	Field 3	Field 4	Field 5	Field 6
21 Amount kept						
22 Level of yield						
23 Field sharecropped x						
24 Sharecropped with whom						
25 Residence of partner						
26 Inputs: field holder						
27 Inputs: Partner						
28 Yield division: Holder: Partner						
29 Inputs hired: from whom, amount paid						
30 'Plough with' arrangements: name of partner(s) (inputs provided by each)						
31 Other inputs borrowed (name of partner)						
32 Weeding partners						

53. Winter 1976: Sharecropping on non-household fields:

	Field 1	Field 2	Field 3	Field 4	Field 5
1 Name of field holder					
2 Residence of field holder					
3 Crop planted					
4 Variety of crop					
5 Yield (bags/tins)					
6 Yield division Holder: Partner					

54. Summer 1976-7: Household Fields

		Field 1	Field 2	Field 3	Field 4	Field 5	Field 6
1	Field ploughed previous winter	x					
2	Date ploughed						
3	Crop planted						
4	Variety of crop						
5	Source of seed						
6	Tractor (TRA)/oxen (KHU)						
7	Fertiliser applied	x					
8	Type of fertiliser						
9	No. packets fertiliser						
10	Source of fertiliser	x					
11	Harrowed (Date)	x					
12	Planter used	x					
13	Cultivator used (Date)	x					
14	No. times weeded by hand						
15	Insecticide applied	x					
16	Source of insecticide						
17	Doupello	x					
18	Other traditional medicines (eg. rain)						
19	Total yield (bags/tins)						
20	Amount sold (not jeela)						
21	Amount consumed (including sold as jeela)						
22	Amount kept						
23	Level of yield						
24	Field share cropped	x					
25	Share cropped with whom						
26	Residence of partner						
27	Inputs: Field holder						
28	Inputs: Partner						
29	Yield division: Holder: Partner						
30	Inputs hired: from whom, amount paid						
31	Plough with: arrangements: name of partner(s) (inputs provided by each)						
32	Other inputs borrowed (name of person lending)						
33	Sowing partners (residence)						

55. Summer 1976-7: Sharecropping on non-household fields

	Field 1	Field 2	Field 3	Field 4	Field 5	Field 6
1 Name of field holder						
2 Residence of field holder						
3 Crop planted						
4 Variety of crop						
5 Yield (bags/tins)						
6 Yield division: Holder: Partner						

56. Has the household head ever lost rights to any field?

	x		x
Yes		No	

IF YES

57. For what reason?

Field 1 _____

Field 2 _____

58. Is the household grain stored in

	x
Basket	
Sack	

59. Did the household hold any matsama in 1976/1977?

	x		x
Yes		No	

IF YES

60.

Date	Purpose	Refreshments provided

61. Does the household cultivate a vegetable garden?

	x
No	
Private	
Communal	

62. What vegetables have been cultivated in 1977? _____

63. Does the household have any fruit trees?

	No. village	No. fields
Peach		
Other		
None		

64. Livestock owned and managed by household, here and elsewhere

	Bulls		Cows		Oxen		Sheep		Goats		Horses	Donkeys	Chickens	Ducks	Pigs
	Under 2 yrs	Over 2 yrs	Under 2 yrs	Over 2 yrs	Under 2 yrs	Over 2 yrs	M	F	M	F					
A															
B															
C															
D															
E															
F															

A - Total owned
B - Mafisa
C - Location of mafisa stock
D - Other stock managed by household
E - Died of old age, 1976-7 (not chickens, ducks)
F - Died of disease/accident, 1976-7 (not chickens, ducks)
G - Slaughtered (not chickens, ducks)

Herdboys

65. Are household stock herded with stock from other households?

	x		x
Yes		No	

IF YES

Explain the arrangement _____

66. Herdboys herding household stock

Name	Father's name	Age	Hired x	Wage	Attends school x

67. Kraal for household stock:

	x
Belongs to household	
Other (specify)	

_____

68. Are the household stock given fodder?

	Cattle x	Horse x	Donkey x	Other (specify) x	
No x					
Barley x					
Other field fodder x					
Weeds x					
Other (specify) x					

_____

69. Were household stock sent to a cattle post:

	Cattle x	Sheep x (place)	Goats x (place)	Date stock left	Date stock returned
Summer 1975-6 x					
Summer 1976-7 x					

70. Who are the grazing controllersof Ha *Khoeli* _____

71. What is their function? _____

_____

72. What parts of Ha *Khoeli* are reserved grazing at what times?

Area	Dates
_____	_____
_____	_____
_____	_____
_____	_____

73. Is the grazing in Ha *Khoeli* sufficient for livestock?

	Cattle	Sheep & Goats	Horses & Donkeys
Yes x			
No x			

74. Has the household clipped wool in the last 12 months?

	x		x
Yes (specify weight)		No	

Weight_____

75. What is the best number of livestock for a household to have?

	No.	Don't know x
Cattle		
Sheep		
Goats		
Horses		
Pigs		

Credit

76. Has the household obtained credit in 1976 or 1977?

	x		x
Yes		No	

IF YES

What was the source?

How much credit was obtained and what was it used for?

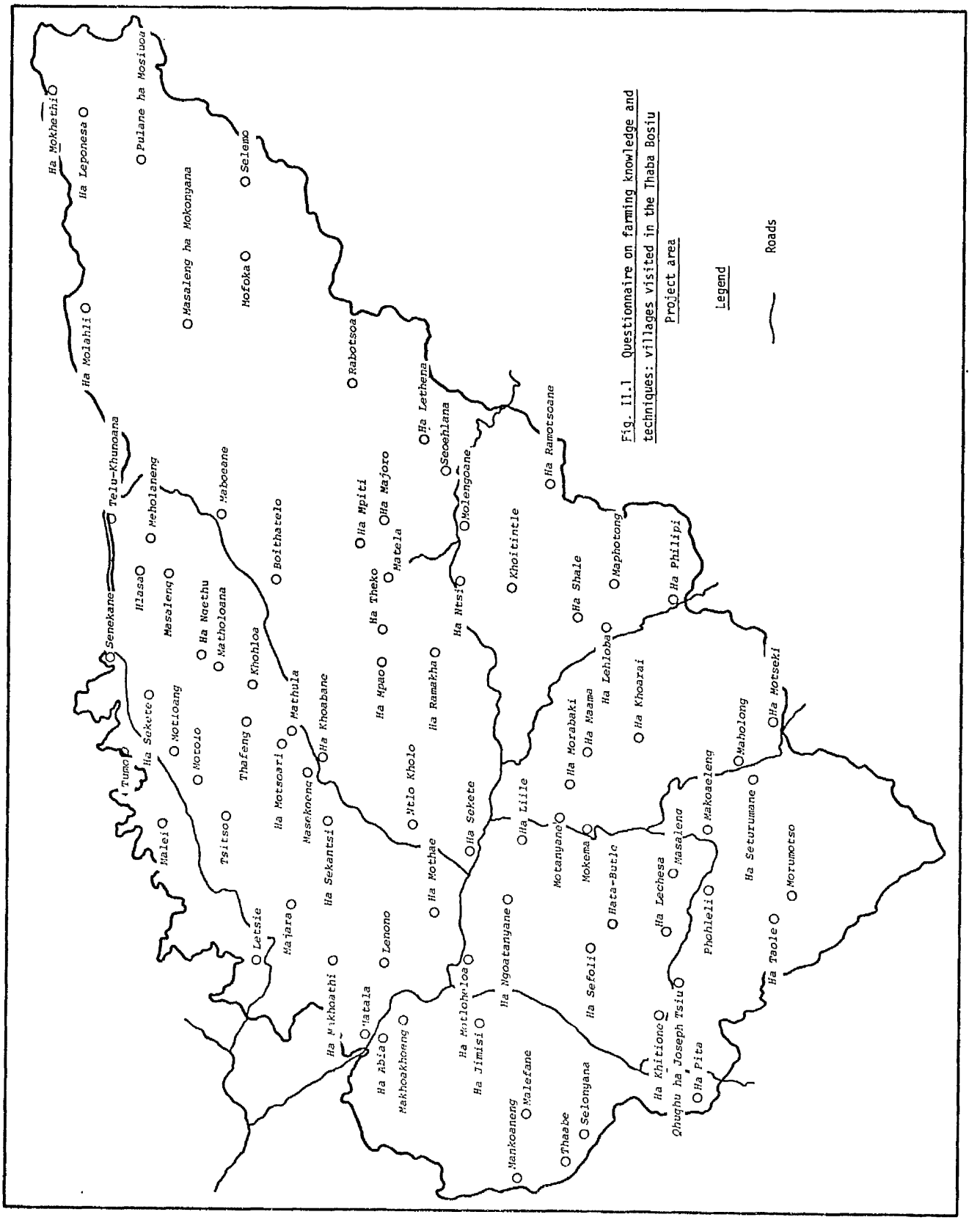
	x	Amount	Use
Project			
Credit Union			
Friend			
Relative			
Other (specify)			

APPENDIX II

Questionnaire on farming knowledge and techniques

A Sesotho version of the questionnaire reproduced below was administered in 337 households scattered throughout the Thaba Bosiu Project area (see Figure II:1) and to 40 members of farmers' associations in the Khomokhoana Project area. In the Thaba Bosiu Project area, households were selected randomly from village lists drawn up in the project's preliminary 'pre-listing' census (1974). Households without arable land were not selected. Enumerators were instructed to administer the questionnaires only to household heads or their spouses. It was judged most efficient that each enumerator should work in one village per day, and that four questionnaires should be administered in the village in the time available. Each enumerator therefore visited a different village each day, working from a list of four randomly selected household heads. If a household head or his spouse on this list was not available, another was sought from an additional 'reserve' list of eight randomly selected names.

The pre-listing census suggested that the number of land-holding households in the Thaba Bosiu Project was 16,714. It was intended to generate a two per cent random sample of these householders, stratified according to the populations of the three areas and two zones into which the project area was divided (see Figure 1:3). As it was calculated that 334 households would be required for the two per cent sample and that they should be grouped into village units of four each, 84 villages were chosen. The proportion of the 84 villages to be selected from each area and zone (Area I Lowlands, Area I Foothills, Area II Lowlands, etc.) was determined according to the percentages of the total project area population of land-holding households located there. The required number of villages was then selected at random from village lists drawn up by area and zone in the pre-listing census. The villages visited are mapped on FigureII:1.


Ha Mokhethi
Ha Leponesa
Pulane ha Mosiuoa
Ha Molahli
Masaleng ha Mokonyana
Hofoka
Selemo
Rabotsoa
Telu-Khunoana
Senekane
Meholaneng
Maboeane
Ha Lethena
Seoehlana
Ha Mpiti
Ha Majoro
Matela
Molengoane
Ha Ramotsoane
Boithatelo
Hlasa
Masaleng
Ha Ngethu
Matholoana
Khohloa
Ha Theko
Ha Ntsi
Khoitintle
Maphotong
Ha Shale
Ha Philipi
Ha Mpao
Ha Ramakha
Ha Lehloba
Ha Khoarai
Ha Hotseki
Ha Morabaki
Ha Maama
Mathula
Ha Khoabane
Ha Motsoari
Thafeng
Motoloang
Ha Sekete
Tumo
Malei
Tsitso
Masekhoeng
Ha Sekantsi
Ntlo Kholo
Ha Mothae
Ha Sekete
Ha Lille
Motanyane
Mokema
Hata-Butle
Ha Lechesa
Masaleng
Makoaeleng
Maholong
Ha Seturumane
Morumotso
Ha Taole
Phohlili
Letsie
Majara
Lenono
Ha Ngoatanyane
Ha Sefoli
Ha Mikhoathi
Matala
Ha Abia
Makhoakhoeng
Ha Matlohloa
Ha Jimisi
Ha Khitiono
Qhughu ha Joseph Tsiu
Ha Pita
Mankoaneng
Malefane
Thaabe
Selonyana
Fig. II.1 Questionnaire on farming knowledge and techniques: villages visited in the Thaba Bosiu Project area
Legend
Roads

The villagers to be interviewed were selected at random from the lists for their respective communities; but as a total of 12 names were required for each village (four respondents and a reserve group of eight), villages having fewer than 12 households were not selected. When the random number tables indicated the number on the area list of such a small village, the first subsequent community on the list meeting this population criterion was chosen instead.

QUESTIONNAIRE ON FARMING KNOWLEDGE & TECHNIQUES

Village_____ Enumerator_____

Area_____ Zone_____ Date_____

1. Name of respondent_____

2. | Male | x | Female | x |

3. Age_____

4. Highest level of education reached by household head

_____

5. Number in household_____ 6. No. of fields held____

FOR EACH FIELD HELD

7. What crop grows best in this field?

	Field 1	Field 2	Field 3	Field 4
Wet year				
Normal year				
Dry year				

IF BEST CROP IN ANY FIELD DIFFERS WITH TYPE OF SEASON

8. What are the reasons for this difference?

Field 1	Field 2	Field 3	Field 4

9. Describe the soil in each field held.

Field 1	Field 2	Field 3	Field 4

10. What other types of soil are there on village land?

_____ _____ _____

FOR EACH FIELD HELD

11. Do you ever plant two or more crops together on this field?

	Field 1	Field 2	Field 3	Field 4
	x	x	x	x
No				
Yes				
(specify)				

IF YES

12. Why?

13. Which is the most valuable soil overall on your land?

14. Describe all the implements you would use during the year for field crops if you had money:

DO NOT OFFER

Plough — Yes / No (x) — IF YES — What type of plough?

Don't know / Other (specify) (x)

Harrow — Yes / No (x)

Cultivator — Yes / No (x)

Tractor — Yes / No (x)

Planter — Yes / No (x) — IF YES — What type of plate?

Don't know / Other (specify) (x)

Other (specify)

15. Who weeds the fields?

16. How many times in the season would they be weeded?

17. How would the weeding be done?

DO NOT OFFER

By hand (x)

Implement (specify)

MAIZE

18. If you should decide to grow maize, which soil would you use?

	x		x	
No soil suitable		Other - specify		_____

19. What type of seed would you use?

	x		x	
Don't know		Name specified		_____

20. What other types of maize seed are there?

1 _____ 2 _____ 3 _____

21. Why would you not use this type?

	1 x	2 x	3 x
Too expensive			
Other reason (specify below)			
Don't know			

_____ _____ _____

_____ _____ _____

22. If you had money, what type of fertiliser would you use?

	x	
None		
Type specified		_____
Don't know		

IF TYPE SPECIFIED

23. Why?

	x	
Advised to do so		
Other explanation (specify)		_____
Don't know		_____

24. What diseases, birds or insects attack maize?

	x
Don't know	
Types named below	

1 _____ 2 _____ 3 _____ 4 _____

FOR EACH

25. What remedy might be applied?

	1 x	2 x	3 x	4 x
Don't know				
Other (specify below)				

_____ _____ _____ _____

_____ _____ _____ _____

SORGHUM

26. If you should decide to grow sorghum, which soil would you use?

	x		x	
No soil suitable		Other - specify		_____

27. What type of seed would you use?

	x		x	
Don't know		Name specified		_____

28. What other types of sorghum seed are there?

1 _____ 2 _____ 3 _____

29. Why would you not use this type?

	1 x	2 x	3 x
Too expensive			
Other reason (specify below)			
Don't know			

_____ _____ _____

_____ _____ _____

30. If you had money, what type of fertiliser would you use?

	x
None	
Type specified	
Don't know	

_____

IF TYPE SPECIFIED

31. Why?

	x
Advised to do so	
Other explanation (specify)	
Don't know	

_____

_____

32. What diseases, birds or insects attack sorghum?

	x
Don't know	
Types named below	

1 _____ 2 _____ 3 _____ 4 _____

FOR EACH

33. What remedy might be applied?

	1 x	2 x	3 x	4 x
Don't know				
Other (specify below)				

_____ _____ _____ _____

_____ _____ _____ _____

WHEAT

34. If you should decide to grow wheat, which soil would you use?

	x		x
No soil suitable		Other - specify	

_____

35. What type of seed would you use?

	x		x
Don't know		Name specified	

_____

36. What other types of wheat seed are there?

1 _____ 2 _____ 3 _____

37. Why would you not use this type?

	1 x	2 x	3 x
Too expensive			
Other reason (specify below)			
Don't know			

38. If you had money, what type of fertiliser would you use?

	x
None	
Type specified	
Don't know	

IF TYPE SPECIFIED

39. Why?

	x
Advised to do so	
Other explanation (specify)	
Don't know	

40. What diseases, pests or birds attack wheat?

	x
Don't know	
Types named below	

1 _____ 2 _____ 3 _____ 4 _____

FOR EACH

41. What remedy might be applied?

	1 x	2 x	3 x	4 x
Don't know				
Other (specify below)				

BEANS

42. If you should decide to grow beans, which soil would you use?

	x		x
No soil suitable		Other - specify	

43. What type of seed would you use?

	x		x	
Don't know		Name specified		_____

44. What other types of beans are there?

1 _____ 2 _____ 3 _____

45. Why would you not use this type?

	1 x	2 x	3 x
Too expensive			
Other reason (specify below)			
Don't know			

_____ _____ _____

_____ _____ _____

46. If you had money, what type of fertiliser would you use?

	x	
None		
Type specified		_____
Don't know		

IF TYPE SPECIFIED

47. Why?

	x	
Advised to do so		
Other explanation (specify)		_____
Don't know		_____

48. What diseases, pests or birds attack beans?

	x
Don't know	
Types named below	

1 _____ 2 _____ 3 _____ 4 _____

FOR EACH

49. What remedy might be applied?

	1 x	2 x	3 x	4 x
Don't know				
Other (specify below)				

_____ _____ _____ _____

_____ _____ _____ _____

OTHER CROPS

50. Do you ever consider growing any other crops in your fields?

	x
No	
Yes (specify)	

1 _____ 2 _____

IF YES, FOR EACH

51. Which soil would you use?

	x	x
Don't know		
Other (specify)		

_____ _____

52. Which variety would you plant?

	x	x
Don't know		
Other (specify)		

_____ _____

53. Would you use fertiliser?

	x	x
Don't know		
No		
Yes (specify)		

_____ _____

54. Would insecticide be needed?

	x	x
Don't know		
No		
Yes (specify)		

_____ _____

VEGETABLES

55. Describe the best conditions for a vegetable garden:

		x		x	
Soil	Don't know		Other (specify)		_____
Slope	Don't know		Other (specify)		_____
Site (e.g. direction faced, position etc.)	Don't know		Other (specify)		_____

		x		x		x
Ownership	Individual		Communal		Don't know	
Responsibility for work	Men		Women		Both	

56. What vegetables can be grown in this village?

	x
Don't know	
Types named	

1 _____ 2 _____ 3 _____ 4 _____

FOR EACH

57. Name the best month(s) of planting — 1 _____ 2 _____ 3 _____ 4 _____

58. Name the best month(s) of harvesting — 1 _____ 2 _____ 3 _____ 4 _____

59. Where is the seed obtained? — 1 _____ 2 _____ 3 _____ 4 _____

60. Is there a communal garden in this village?

	x
Yes	
No	

ENUMERATOR - ASK WHETHER RESPONDENT HAS DONE ANY OF THE FOLLOWING

	No x	Yes x	
61. Visited Project pitso this summer or last winter?			Subject _____
62. Visited Farmer Training Centre?			_____
63. Attended demonstration day			_____
64. Visited demonstration plot summer 1976 - 1977			
65. Visited demonstration plot winter 1976			
66. Do you know the location of a demonstration plot?			Place _____

67. Are farmers in this village helped by an extension agent?

	x	
No		
Yes		IF YES What is his name? _____
Don't know		

68. Is any member of the household a member of the following?

	Yes x	No x	
Farmers' Association - specify			_____
Credit Union - specify			_____
Land allocation committee			
Development committee			

69. Has the household ever obtained credit?

	x
Yes	
No	

70. Number of household members employed:

Mines (RSA)	
Other (RSA)	
Lesotho Government	
Teacher	
Clerk	
Craft work	
Other - specify	_____

71. Number of livestock owned by household, here or at cattle post (include immature stock and stock out on loan)

Cattle	
Sheep	
Goats	

72. Does the household have any of the following (in working order)?

	x
Cultivator	
Planter	
Harrow	
Plough	
Scotch cart	
Tractor	
Truck	
Car	

Responses to certain questions in this survey by villagers in the Thaba Bosiu Project area are tabulated below. Percentages in each of these tables indicate proportions of the respondent population of 337.

Table II:1 Who weeds the household fields? (Q. 15)

	%
Respondent (female)	33.9
Women, girls	23.2
'The household' (Lelapa)	20.5
Husband and wife	11.3
Respondent (male)	4.8
Hired labour, letsema	3.9
Family + hired labour	2.4
	100.0

Table II:2 How many times are the fields weeded? (Q.16)

	%
Once	77.4
Twice	19.9
Three times	2.7
	100.0

Note: Many respondents saying that they weeded twice in fact meant "once by cultivator and once by hand".

Table II:3 What soil would maize be planted in? (Q.18)

	%
Black soil	32.3
Selokoe	28.6
Lehlabathe	15.8
Red soil	12.2
Grey soil	3.0
Other	8.1
	100.0

Note: A number of the original response categories have been grouped together to produce this abbreviated tabulation.

Table II:4 What soil be sorghum be planted in? (Q.26)

	%
Black soil	32.6
Selokoe	26.5
Red soil	13.4
Lehlabathe	11.0
Grey soil	3.6
Lehlohlojane	3.3
Other	9.6
	100.0

Note: (see Table II:3)

Table II:5 What soil would wheat be planted in? (Q.34)

	%
Lehlabathe	22.3
Black soil	21.4
Selokoe	19.9
Red soil	11.6
Grey soil	7.1
None	6.2
Other	11.5
	100.0

Note: (see Table II:3)

Table II:6 What soil would beans be planted in? (Q. 42)

	%
Black soil	24.9
Lehlabathe	23.1
Red soil	19.6
Selokoe	18.4
Grey soil	3.6
Other	10.3
	100.0

Note: (see Table II:3)

Table II:7 What fertiliser would be used for maize? (Q.22)

	%
Don't know	25.8
2 - 3 - 0	17.8
Supers	9.5
White	7.4
White, in granules	6.2
Dark brown	4.2
Any	3.0
None	3.0
Light brown	3.0
Black	2.7
Dark brown, in granules	2.7
Black, like sorghum	2.4
White, like sorghum	2.4
Black, in granules	2.1
Other	7.8
	100.0

APPENDIX III

Questionnaire on land-holders' attitudes

A Sesotho version of the questionnaire reproduced below was administered in 335 households scattered throughout the Thaba Bosiu Project area. The procedure described above for generating a stratified sample of two per cent of the land-holding households in the area, in 84 villages, was repeated to produce a second list of villages and respondents. As will be seen from Figure III:1, some of the villages chosen had already been visited in the earlier farming knowledge and technique survey. None of the respondents visited in the attitude survey were found previously to have answered the technical questionnaire, however. As in the first survey, enumerators were instructed to administer the questionnaire only to heads of households or their spouses.

To begin the interview, respondents were asked to read aloud the note on the first page of the questionnaire. Besides explaining the purpose of the survey, this served as a literacy test to provide an answer for Q. 4. If a respondent could not read the explanatory note, the enumerator read it out.

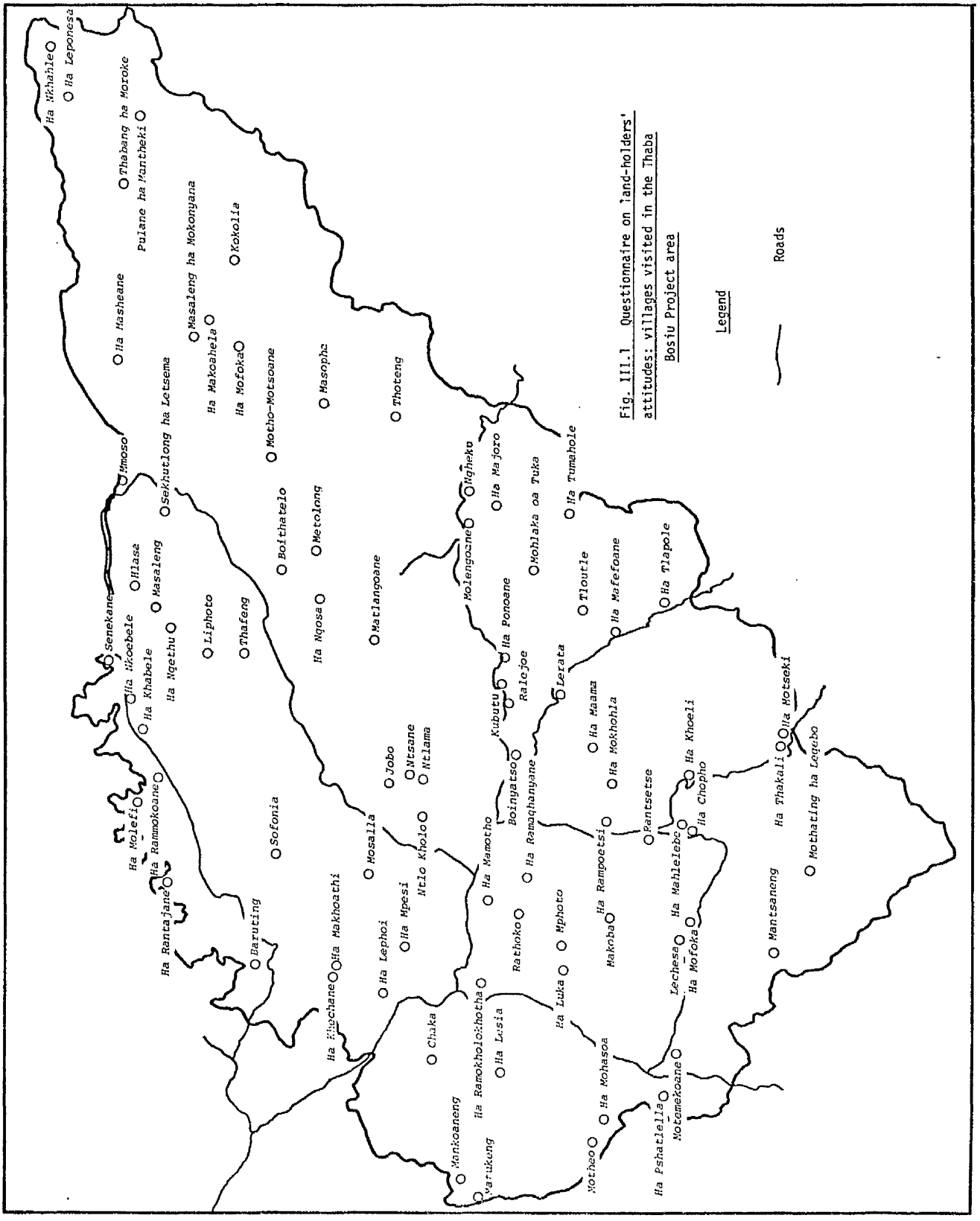


Fig. III.1 Questionnaire on land-holders' attitudes: villages visited in the Thaba Bosiu Project area

THABA BOSIU RURAL DEVELOPMENT PROJECT

The purpose of these questions is to understand the matters that you think are important in life. We hope to help teachers, extension workers and others to provide you with better service. We cannot do this properly if we do not know what you think and know and hope. Please complete these sentences in any way you like, about any matters which are important to you in your life and thought, so that we can understand your ideas better.

QUESTIONNAIRE ON FARMER ATTITUDES

Village_____ Date_____

Area_____ Zone_____ Enumerator_____

1. Name of respondent_____

2. Sex

	×		×
M		F	

3. Age

	×		×
Under 35		Over 35	

4. Can read Project pamphlet?

	×		×
Yes		No	

5. Have you attended a Project pitso this Summer or last Winter?

	×		×
Yes		No	

If Yes

What was the subject?_____

6. Do you know the location of a Project demonstration plot?

	×		×
Yes		No	

If Yes

Where is it?_____

What is being demonstrated?_____

7. Has the household ever obtained Project credit?

	×		×
Yes		No	

If Yes

What was the credit for?_____

8. Have you ever visited the Farmer Training Centre at Ha Matela?

	×		×
Yes		No	

If Yes

What was the subject when you visited?_____

9. Can you name 2 types of fertilizer?

	×		×
Yes (specify)		No	

_____

_____

10. Does the household have any of the following (in working order)?

	×
Plough	
Harrow	
Planter	
Cultivator	
Scotch Cart	
Car/Truck	
Tractor	

11. Does the household have a radio/record player in working order?

	×		×
Yes		No	

12. Number of livestock owned by household (here or elsewhere)

Cattle	
Sheep	
Goats	

13. Number of fields held by household_____

14. Is there any metal-roofed building in the household?

	×		×
Yes		No	

15. Have you travelled outside Lesotho in 1976 or 1977?

	×		×
Yes		No	

16. Did you hold any feast for the ancestors this Summer or last Winter?

	×		×
Yes		No	

If Yes

Purpose of feast

_____

_____

What slaughtered

_____

_____

SENTENCE COMPLETION:

Please complete the following sentences with any words that you like:

Example: My father..... had many cattle/died in 1950/likes beer

17. In the mountains.....
18. One day I will.....
19. I remember that.....
20. In the Republic.....
21. In the lowlands of Lesotho.....
22. I know that.....

23. I am sorry that.....
24. Lesotho.....
25. I am unable to.....
26. I believe that.....
27. I hope that.....
28. They have told me that.....
29. I want to.....
30. In the old times.....
31. Women.....
32. I am able to.....
33. In the future.....
34. The Basotho.....

Please complete the sentences again, this time using any words that you like concerning crops and livestock:

35. In the mountains.....
36. One day I will.....
37. I remember that.....
38. In the Republic.....
39. In the lowlands of Lesotho.....
40. I know that.....
41. I am sorry that.....
42. Lesotho.....
43. I am unable to.....
44. I believe that.....
45. I hope that.....
46. They have told me that.....
47. I want to.....
48. In the old times.....
49. Women.....
50. I am able to.....
51. In the future.....
52. The Basotho.....

53. PROBLEMS, CHANGES & NEEDS

Name all the things needed for good farming and high yields:

	Order of importance (1st - 3rd)	Can be obtained with some help from other people (specify) x	Can only be obtained with help from other people (specify) x	Cannot be obtained with help of any other person x
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Other comments

1
2
3
4
5
6
7
8
9
10

54. Name all the changes you desire for good farming in the next 10 years:

	Order of importance (1st to 3rd)	Can be obtained with some help from other people (specify) x		Can only be obtained with help from other people (specify) x		Cannot be obtained with help of any other person x
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Other comments

1
2
3
4
5
6
7
8
9
10

55.

Name all the problems you face in farming to-day:

	Order of importance (1st to 3rd)	Can be solved with some help from other people (specify) x		Can only be solved with help from other people (specify) x		Cannot be solved with help from any other person x
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Other comments

1
2
3
4
5
6
7
8
9
10

FREE ASSOCIATION:

For each of the following things, name 2 things which that thing brings to your mind:

Examples:

Meat:	Feast	Cow
Bus:	Speed	Maseru
Forest:	Firewood	Trees

56. Calf			70. Garden		
57. Peas			71. Sorghum		
58. The ancestors			72. Peak of Mountain		
59. Planter					
60. Beans			73. Rain		
61. Mountain			74. Ghost		
62. Grass			75. Border		
63. Cave			76. Dam		
64. Road			77. Tree		
65. Hill			78. Dung		
66. River			79. Donga		
67. Earth			80. Children		
68. Deep pool					
69. Cow					

THABA BOSIU PROJECT

81. Name the activities of the Thaba-Bosiu Project

	Order of importance (1st to 3rd)

82. Where does the Thaba-Bosiu Project work? _____

83. To whom does the Thaba-Bosiu Project belong? _____

84. Where are the offices of the Thaba-Bosiu Project?_____

85. What has the Thaba-Bosiu Project done in the area of your chief?_____

_____

86. Does the Thaba-Bsoiu Project help you?

	X		X
Yes		No	

If Yes

How does it help you?_____

87. What else should the Thaba-Bosiu Project do?

	Order of importance (1st to 3rd)
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

88. What activities should the Thaba-Bosiu Project give up? (Explain)

_____

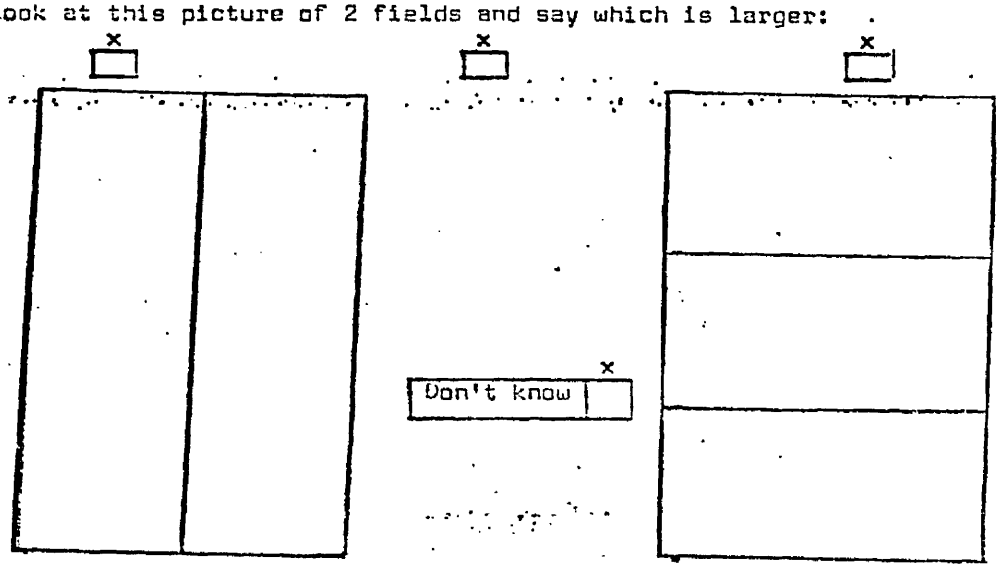
_____

_____

_____

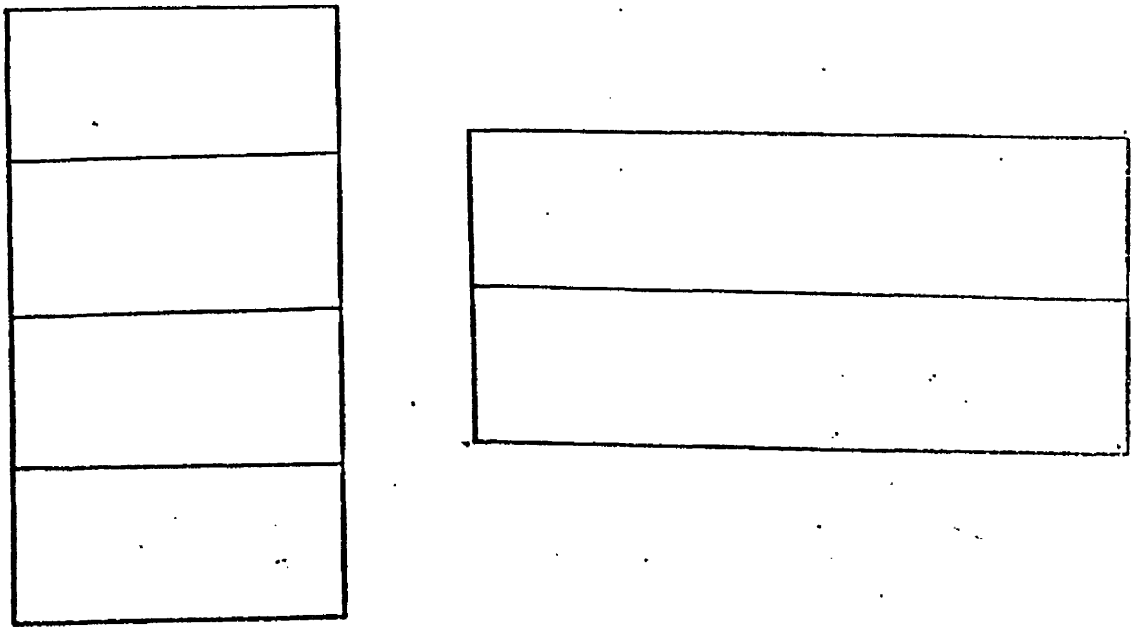
MEASUREMENT

89. Look at this picture of 2 fields and say which is larger:



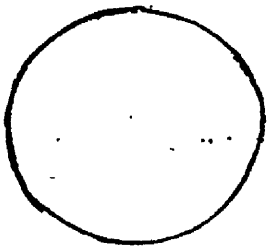
	X
Don't know	

90. Look at this picture of 2 fields and say which is larger:



	x
Don't know	

91. How would you measure the size of this round house?



	x
Don't know	

Explain

_____

_____

_____

_____

The ten most common responses to 15 of the 18 'general' sentence introducers were tabulated in Chapter six. The ten most common responses to the remaining three introducers are shown below. Percentages in these tables indicate proportions of the respondent population mentioning given response categories.

Table III:1 In the mountains...

	%
We own and herd stock	15.2
We grow staple crops	9.3
Things are nice	7.2
We travel	4.2
Life is hard	3.9
We lack comforts	2.1
We grow cash crops	2.1
We have relatives	2.1
We are at home	1.5
We farm	1.2

Table III:2 In the Republic...

	%
In the Republic is work, money	58.2
Young men work	18.2
We travel	13.7
We can work	11.6
We have relatives	10.7
In the Republic it is bad	10.1
Things are nice	7.8
We work in mines	1.8
We buy non-farm goods	1.8
We lack strength	1.8

Table III:3 Women...

	%
Women work hard	24.8
We do domestic tasks	17.9
Women do field work	14.0
We weed, harvest, thresh, winnow,	10.1
We are bad, quarrel	7.8
Women are strong	7.5
We enjoy and entertain	6.0
We talk and discuss	3.6
We work well	3.0
We cooperate, agree	2.4

Free Association

Reference has been made at various points in the text (particularly in Chapter three) to the 'free association' questions included in this attitude survey (Questions 56 - 80). Many of the responses recorded in this section of the survey were unsurprising, but numerous points of interest were also raised. The five words most commonly given in response to each of these questions are therefore tabulated below, with the exception of 'sethotsela...' (ghost): this word was inserted in the hope of prompting geographical references to places or landscape features thought to be haunted, but no such response was encountered. As some meaning is often lost in translation, the original Sesotho is also shown throughout.

In these tables, nouns are usually given (where appropriate) in the singular and verbs in the infinitive. In most cases the form given represents all other forms of the word with similar meaning, eg.:

ho eta (moeti, baeti, leeto)	to travel (traveller, travellers, journey)
ho thaba (thabo)	to rejoice (joy)
ho rapela (thapelo, lithapelo)	to pray (prayer, prayers)

In cases where different forms of the word have different meanings these are listed separately, eg.:

ho hola boholo ho holisa	to grow size to bring up
ha khathala ho khathatsa	to tire to make tired
ha noa ha noesa	to drink to water (stock)

Almost all the responses encountered are listed as individual items. In a few cases, however, one listed word represents one or more other words recorded which have closely similar meanings, eg.:

ho hatsela (serame, mohatsela, tsilili)	to be cold (cold, frost; cold; cold)
ho khathatsa (ho sokolisa)	to make tired (to cause to work hard)

Occasionally two words with closely similar meanings or associations are listed jointly, eg.

sopho sethothi	soup, vegetable soup

In most cases, enumerators recorded the words with which villagers replied to these promptings verbatim, but where the respondent answered with a phrase or sentence, this was distilled into a single word at the enumerator's discretion. The percentages in the following tables indicate the proportions of the respondent population mentioning each of the words listed in their replies. As more than one response could be recorded for a single word, these percentages sum to more than 100.

Table III:4 Namane (calf)...

		%
lebese, ho sisa	milk, to have much milk	54.6
khomo	cow	50.4
nama	meat	23.0
ho lema	to plough, farm	14.0
leruo	wealth	8.7

Table III:5 Lierekisi (peas)...

		%
ha ja	to eat	47.8
chelete	money	25.1
ho lema	to plough, farm	20.3
peo	seed	17.0
ho rekisa	to sell	13.4

Table III:6 Balimo (the ancestors)...

		%
mofu	dead person	27.8
mokete	feast	27.5
ho rapela	to pray	22.7
ho thusa	to help	19.7
ho ja	to eat	14.6

Table III:7 Polantere (planter)...

		%
ho lema	to plough, farm	50.4
ho jala	to sow	23.4
tšimo	field	22.1
chelete	money	16.1
ekhe	harrow	10.7

Table III:8 Linaoa (beans)...

		%
chelete	money	51.3
ho ja	to eat	40.0
ho rekisa	to sell	20.3
sopho, sethothi	soup, vegetable soup	14.3
ho chaea	to harvest (much)	11.6

Table III:9 Thaba (mountain)...

		%
joang	grass	25.4
patsi	firewood	25.1
liphoofolo	livestock	23.3
lejoe	stone	17.0
moru	wood, forest	8.4

Table III:10 Joang (grass)...

		%
ntlo	house	51.0
liphoofolo	livestock	34.6
ho rulela	to thatch	20.3
ho fula	to graze	15.5
khomo	cow	13.1

Table III:11 Lehaha (cave)...

		%
pula	rain	60.9
ho itšireletsa	to take shelter	17.9
moriti	shade	16.7
liphoofolo	livestock	15.2
Moroa	Bushman	11.0

Table III:12 Tsela (road, path)...

		%
Ho tsamaea	to go	53.4
koloi	vehicle	36.4
ho eta	to travel	31.6
motho	person	14.6
'mila	road for vehicles	7.8

Table III:13 Leralla (hill)...

		%
lejoe	stone	43.6
patsi	firewood	13.7
liphoofolo	livestock	12.5
thaba	mountain	9.9
joang	grass	9.3

Table III:14 Noka (river)...

		%
metsi	water	61.5
ho hlatsoa, ho tola	to wash, bathe	24.8
ho tšela	to cross	24.5
borokho	bridge	10.7
liphhofolo	livestock	9.3

Table III:15 Mobu (soil, earth)...

		%
ho lema	to plough, farm	57.9
ho lila	to plaster	57.9
lijalo	crops	15.8
ho chaea	to harvest (much)	8.4
ho cheka, ho theba	to excavate, dig	6.3

Table III:16 Koeetsa (deep pool)...

		%
noha	snake	63.3
metsi	water	25.4
kotsi	danger	13.4
ho hohela	to attract, entice	12.2
boliba	depth of water	11.6

Table III:17 Khomo e tsehali (cow)...

		%
lebese, ho sisa	milk, to have much milk	80.0
namane	calf	33.7
leruo	wealth	25.4
nama	meat	20.6
ho tsoala	to give birth	7.8

Table III:18 Serapa (garden)...

		%
moroho	vegetables	65.7
ho lema	to plough, farm	27.8
tšimo	field	10.4
lijalo	crops	9.3
cabbage		7.8

Table III:19 Mabele (sorghum)...

		%
joala	beer	60.9
ho ja	to eat	24.5
motoho	porridge	17.6
ho rekisa	to sell	11.6
leshele-shele	thin porridge	11.3

Table III:20 Tlhoro ea thaba (peak of mountain)...

		%
ho hatsela	to be cold	23.3
lehloa	snow	22.4
liphoofolo	livestock	15.5
patsi	firewood	13.4
selomo	precipice	11.9

Table III:21 Pula (rain)...

		%
metsi	water	24.2
lijalo	crops	21.5
ho khora	to have plenty, be satisfied	17.6
letolo	lightning	15.8
ho koloba	to get wet	13.1

Table III:22 Moeli (border, boundary)...

		%
tšimo	field	64.8
ho arola, ho khaola	to divide, separate	25.7
naha	country	23.6
morena	chief	20.9
ntoa	war	7.2

Table III:23 Letamo (dam)...

		%
metsi	water	34.9
ho hlatšoa, ho tola	to wash, bathe	26.6
liphoofolo	livestock	23.6
ho nosetsa	to water, irrigate	20.6
tlhapi	fish	15.2

Table III:24 Sefate (tree)...

		%
patsi	firewood	59.7
perekisi	peach	53.7
tholoana	fruit	16.7
mollo	fire	12.8
ntlo	house	8.4

Table III:25 Bolokoe (dung)...

		%
ho lila	to plaster	70.4
khomo	cow	32.2
sesu	dried dung for burning	25.1
ho besa	to make fire	23.3
moiteli	manure	13.4

Table III:26 Lengope (donga)...

		%
khoholeho	erosion	17.0
ho oela, ho heleha	to fall down, to tumble	15.5
selomo	precipice	14.6
ho senya	to damage	14.3
tšimo	field	11.9

Table III:27 Bana (children)...

		%
ho roma	to send	35.5
sekolo, thuto	school, education	31.3
ho bapala	to play	21.2
ho thusa	to help	9.6
ho holisa	to bring up	9.3

APPENDIX IV

Soil conservation questionnaire

A Sesotho version of the questionnaire reproduced below was administered in five villages in the Thaba Bosiu Project area, as described in Chapter seven. As in the other sample surveys carried out in this area, the required number of households (in this case 50 per village) were selected at random from the village lists drawn up during the pre-listing census. The questionnaires were administered to household heads or their spouses only.

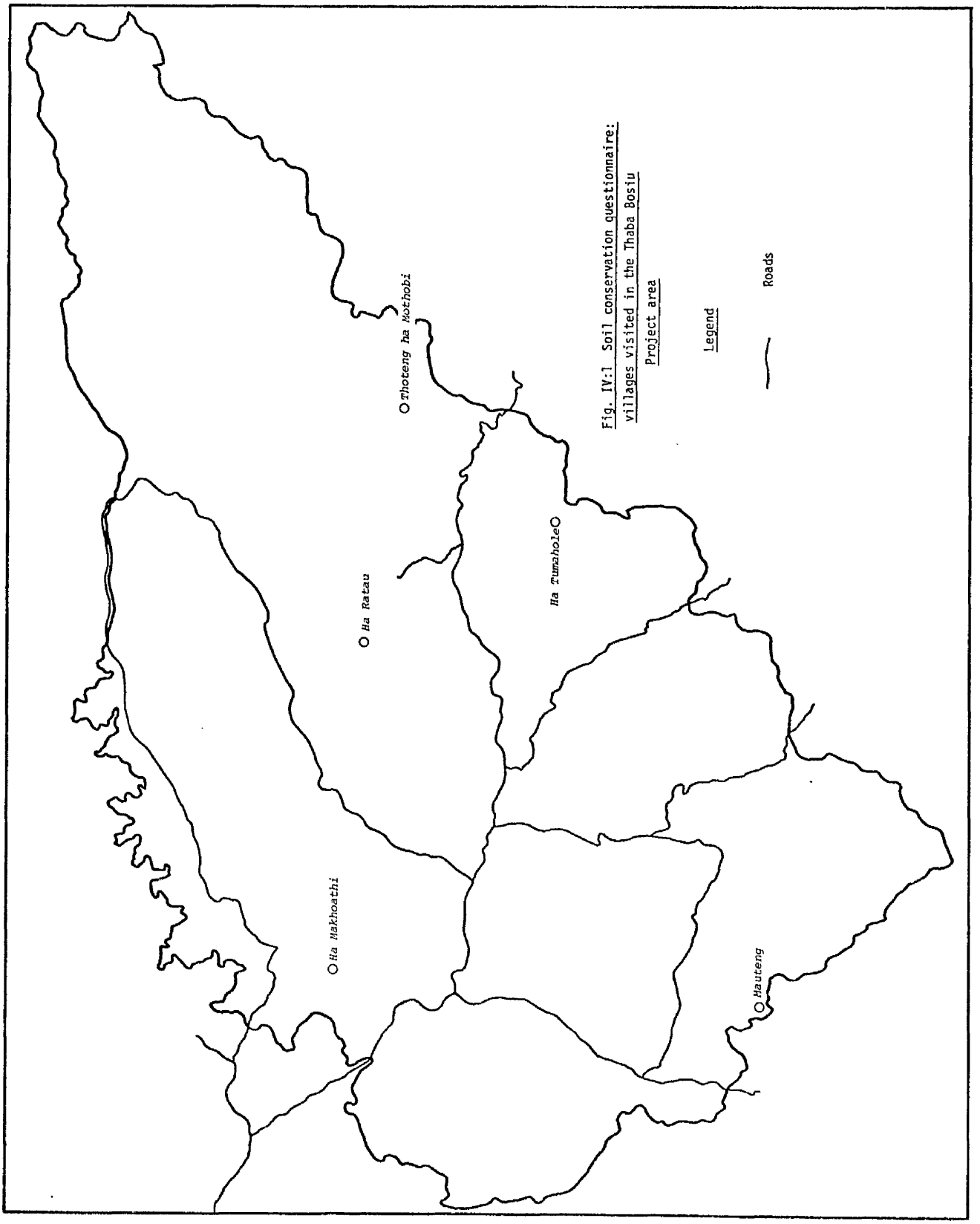


Fig. IV:1 Soil conservation questionnaire: villages visited in the Thaba Bosiu

THABA BOSIU PROJECT

SOIL CONSERVATION QUESTIONNAIRE

JUNE 1977

Village_____ Date_____ Enumerator_____

1. Name of respondent_____

2. Age_____

3. Sex

	x		x
M		F	

4. Highest standard passed_____

5. Can read Project literature

	x		x
Yes		No	

6. Have you attended a Project pitso this year?

	x		x
Yes		No	

If Yes

What was the subject?_____

7. Do you know the location of a Project demonstration plot?

	x		x
Yes		No	

If Yes

Where is it?_____

What is being demonstrated?_____

8. Has the household ever obtained Project credit.

	x		x
Yes		No	

If Yes

What was the credit for?_____

9. Have you ever visited the Farmer Training Centre at Ha Matela?

	x		x
Yes		No	

If Yes

What was the subject?_____

10. Can you name two types of fertiliser?

	x		x
Yes (specify)		No	

_____

_____

11. Does the household have any of the following (in working order)?

	x
Plough	
Harrow	
Planter	
Cultivator	
Scotch Cart	
Car/Truck	
Tractor	

12. Does the household have a radio or record player in working order?

	x		x
Yes		No	

13. Number of livestock owned by the household (here or elsewhere)

Cattle	
Sheep	
Goats	

14. Age of herdboy_____

15. Number of fields held by household_____

16. Is there any metal-roofed building in the household?

	x		x
Yes		No	

17. Have you travelled outside Lesotho in 1976 or 1977?

	x		x
Yes		No	

18. Number of people in household (including resident members on mine or other contract employment in RSA)_____

19. Were the household livestock sent to a cattle post last summer?

	x		x
Yes		No	

If No

20. Why?

DO NOT OFFER

	x
Don't know	
No herdboy/money	
Sufficient grazing here	
Small number of stock	
Cattle post closed	
Fear of theft	
Other (specify)	

_____

21. What parts of the village lands are reserved grazing at certain times?

Area	Dates

22. Who are the controllers of grazing in this village?_____

23. What is their function?_____

24. Do herdboys understand the reserved grazing laws?

	x
Most of them	
Some of them	
None	

25. What damage do herdboys cause in the lands?_____

26. How can they be taught to prevent this damage?_____

27. Is there soil erosion on the lands of this village? (Grazing areas, fields or any other place)

	x		x		x
Yes		No		Don't know	

If Yes

28. What forms does this erosion take?

Type	Grazing areas/Fields

29. In what other ways does the land become poorer? Specify in detail

30. Can soil erosion be combated by:

The people alone	x	The people with help (specify whose help)	x	The people cannot combat it	x

31. Why do donges form and why does the land become poorer?

DO NOT OFFER

	x
Don't know	
Too many people	
Too many livestock	
Nature of soil	
Rain	
Sun	
Failure of Government	
Failure of Chief	
Other (specify)	

32. What can be done to prevent donges?

	The people can do it alone x	The people can do it with help (specify) x	The people cannot do it (explain) x

33. What else can be done to improve the quality of the land?

	The people can do it alone x	The people can do it with help (specify) x	The people cannot do it (explain) x

34. In what ways do people cause erosion and damage to the land?

35. When rain is abundant, how can the water be used?

36. Is there sufficient grazing on the lands of this village?

	x		x
Yes		No	

If No

37. How can this problem be solved?

38. Whose is the responsibility for fighting erosion and improving the land?

DO NOT OFFER

	x
Government	
Project	
Chief	
Committee	
People	
Other (specify)	

39. Who should organise conservation work in a village?

Explain

40. Should the Thaba Bosiu Project help in conservation work?

	x		x		x
Yes		No		Don't know	

If Yes

41. What should the Thaba Bosiu Project do?

42. Should the people be paid for conservation work?

	x		x		x
Yes		No		Don't know	

Give reasons for answer.

43. Do the people need to learn more about conservation?

Yes		No		Don't know	

If Yes

44. Who should be taught?

	x
Men	
Women	
Boys	
Girls	
Everyone	

IF ADULTS AND CHILDREN MENTIONED

45. Should adults and children be taught:

	x
Together	
Separately	
Don't know	

46. How should people be taught about conservation?

DO NOT OFFER

	x
Pitsos	
Training Centre	
Read at home	
Other (specify)	
Don't know	

47. Are there any laws concerning soil conservation? Explain

	x		x		x
Yes		No		Don't know	

48. A certain man has 8 animals: 3 cows, 4 oxen, and one bull. He goes to work, and gets enough money to buy one milk cow from the Government here, or two oxen in the Republic. Which should he buy? Explain.

_____

_____

_____

49. An old man lives happily: he has 15 cattle, a horse and two donkeys. He has three houses and three fields; he has a Scotch cart and all farm implements. But his table is old and broken, and he has only one chair. His sons send him money. Some men come selling a fine cow. Should the old man buy a new table and chairs or should he buy the cow?

	X
Table and chairs	
Cow	
Don't know	

Comments: _____

_____

_____

50. The younger son of this old man has not yet married, there also remains one unmarried daughter. Two rich men from other villages come to him; each wants his son to marry the girl. The first offers a good number of beasts for bohali; the second will not give him so many, but they are fine, including two Government improved animals. The old man likes both men and their sons are good; he does not know whom to choose. Which bohali should he accept? Explain.

_____

_____

_____

Responses to Questions 43 - 47 of the soil conservation questionnaire are tabulated below. Percentages indicate proportions of the respondent population of 247, unless otherwise stated.

Table IV:1 Do the people need to learn more about conservation? (Q.43)

	%
Yes	97.6
No	0.4
Don't know	2.0

Table IV:2 Who should be taught? (Q. 44)

	%
Everyone	46.5
Adults	46.5
Men	4.6
Children	1.2
Women	0.4
Don't know	0.8

Table IV:3 How should adults and children be taught? (Q. 45)

Separately	67.9
Together	29.5
Don't know	2.7

Note: Percentages indicate proportions of the group mentioning both adults and children in Q. 44 (Table IV:2)

Table IV:4 How should people be taught about conservation? (Q. 46)

	%
At Farmer Training Centre	45.7
At pitsos and F.T.C.	23.0
At pitsos	18.9
Demonstrations	2.1
As the government thinks best	1.2
Other	0.8
Don't know	8.2

Table IV:5 Are there any laws concerning soil conservation? (Q. 47)

	%
Yes	18.0
No	5.3
Don't know	76.7

APPENDIX V

Notes on interviews with conservation committee members, July 1977

As part of research into the role of committees in agricultural development in Lesotho, interviews were conducted with individual conservation committee members during July, 1977, in the six villages given intensive conservation attention in the Thaba Bosiu Project's Area I Foothills: Khotso, Molengoane, Mosuoe, Nqosa, Ratau and Tumahole. The notes presented below were originally submitted as a confidential report to the head of the project's soil conservation division. As committee members were requested to be candid with their opinions and in some cases did make statements that they did not want repeated to other members or to certain project officers, all personal names have been scrambled in the version presented here. The names of the six villages have been omitted, and the names of the sub-villages have been changed.

A fairly fixed pattern of questions was followed with each member; lack of time unfortunately prevented as detailed an interview as is desirable. A primary conclusion from this short piece of work was that there is much valuable information to be gained on the running of conservation work and its social aspects through such face-to-face individual interviews and that committee members appreciate being consulted on their work and the problems they face. It is recommended that such consultation be carried out on a more regular basis if possible.

However, the number of interviews where meaningful communication took place was probably less than half the total. The interviewer's inadequate Sesotho, lack of time for the discussion, and boredom or haste on the part of respondents who had been kept waiting or had other things to do, all contributed to this problem of people simply saying that there were no problems, the committee was working well and that they could

suggest no alterations, improvements or additional work. Another significant factor is that there is a minority of members who are either incapable of discharging their job properly, showing responsibility and initiative; or who are not interested in their work and make little effort to discharge their responsibilities as members. Finally there are those who are either afraid of the white interviewer, dislike him, or feel him to be incapable of grasping the complexities of the actual social environment in which the committee works and therefore do not attempt to explain the real position to him. The latter feeling is most justifiable, since as has been pointed out it would seem that insufficient effort has been made to keep in close touch with the detailed politics of the communities concerned. (On the other hand, the Thaba Bosiu Project conservation division probably has the best record on this score to date in Lesotho.) For all these reasons therefore, many of the following notes make repetitious reading and those which provide valuable information are in a minority.

The interviews were carried out under the following approximate headings:

1 At what stage the member entered the committee.

2 Why the member felt he had been chosen for the job.

3 What the member considered his responsibilities and work to be.

4 Whether he finds the work of a member hard or easy, and what problems he encounters.

5 What he conceives to be the overall purpose and duties of the conservation committee.

6 Whether the committee members cooperate with each other, and the reasons for any disharmony.

7 What problems the committee encounters (including difficulties caused by people from other villages and relations with Project officers).

8 Whether the member can suggest any improvements to the committee's methods, or extra tasks it should undertake now or in the future.

Village A

The committee was established early in 1974. Only three of the six members came to the chief's place for the meeting, although they had all been notified (P.Senoko was working with labourers

at Tumahole and T. Moji had gone to Maseru).

Chief's village:	Tsietsi Moji
	Simone Senoko
	Pitso Senotlolo
Ha Malefane	Mojabeng Tlali
Ha Letsie	Makalo Thekiso
Ha Lechesa	Tahleho Phohleli

Simone Senoko

Born 1909, served in World War II. Worked as an underground miner in the Republic for many years, subsequently responsible for issuing stock and wool permits. He entered the committee at its inception: not sure of the year. He was chosen by the people at a big pitso, because they trusted that he would work for them. He is one of the chief's counsellors. A member's duties are to explain to the Project what work is needed in the area and what the people want; and to arrange for the chief to call the people together so that they can agree to the Project's work. He likes the work because it is very beneficial - there was a lot of soil being washed away by rain, and the Project has prevented this. 'Ha o khatatse, mosebetsi oo, hoba ke bophelo' (this work is not tiring, because it is life). He has no problems as a member apart from the lack of compensation for his work for the people and the government; when this work demands his attention he must forsake his home and family work. The committee's duty is to bring the people and the government together and promote progress and independence so that the community should advance to the status of other nations. He says there is peace among the members. There are no real problems at present: some people were opposed to the land reallocation, but the committee explained that it was for their benefit. Some people complain about not being hired for work on conservation or the cropping scheme when it is said to be for the benefit of the whole village, but this is not a serious problem. He wants the committee to organise stricter grazing control on the conservation works.

Mojabeng Tlali

Born in this village in 1922. He worked on the mines as a loader, machine boy and compound policeman. He likes working here, rather than having to be away from home for up to three years at a stretch. He was chosen by the people when the work started, so that he should represent them; this was his first time to work on a committee. He is not the headman of Ha Malefane. His work goes well; he gets on well with people. His task as a member is to coordinate the chieftainship, the Project and the people. He must check on the progress of the Project work and prevent livestock damage on works. Members should supervise the labourers on these works, ie., as foremen. He has to work for the people because they chose him for the task; this does not tire or irritate him if he and the people cooperate, which is the case. They haven't yet had any real problem, although some people previously did not want their fields to be divided ('cut'). The committee and chief called these people and explained the matter to them. Some people did not like the new pattern of long fields, but these now also agree. The overall task of the committee is to coordinate the people and the chief. There is harmony between the members; if they were disunited the people would soon tell. The committee has no real problems, enemies have yet to appear. He wants to see fish ponds, orchards and a forest of pines but feels this will probably be the work of the development committee ('komiti ea ntlafatso'). The conservation committee will be looking after the conservation works. They have heard that this will be the future task of this committee, although he himself doesn't know.

Tahleho Phohleli

He entered the committee when it was started; he was chosen in a pitso of the whole area, not just of Ha Lechesa and not because he is a chief of Lechesa. The people wanted him as a representative. There has been no change in committee membership since that first pitso; the people were consulted at one stage as to whether they wanted different members and said that the present ones were satisfactory. The task of a member is to deal with the complaints and requests of the people; if the people are not satisfied with any of the conservation work, he must deal with the problem. He must consult with other members on any such

problem; they solve it if they can, or else take it to the chief. He likes the work 'because I was chosen for it by the community' - it tires him but he has to keep to his duty. The overall task of the committee is to look after the conservation work and prevent damage by livestock or ploughs; to ensure that the kikuyu and other grass planted is protected. He should encourage correct ploughing methods. As far as he can see there is harmony in the committee. Some people refused to let the machinery into their fields, and the committee had to pacify them. They had problems in explaining the land reallocation to people. People from other villages cause damage with their stock; they have had to consult the chiefs of these people, who have been helpful. The committee used to have enemies; it has pacified most, but not all, of them by explaining the benefits of the work. He feels the committee should be concerned with all work on the land. Better grazing control is required. When the Project has gone the committee 'e tla hlahloba naha' (will keep the land under scrutiny) and prevent damage to conservation works, bringing any infringements to the attention of the chief and getting the chief to organise the people to repair or prevent such damage; 'this work is ours'. He wants to see fish ponds here as well as at Lechesa. The people dug up land for an orchard at Lechesa three years ago, but they are still awaiting government help with the trees.

Village B

Molefi Lebeko (Chairman)
Ishmaele Lebeko
Khotso Mohatlana
Monaheng Sello
Loti Moseli
Ramatlatsa Lebeko

Only Molefi Lebeko and Monaheng Sello came to keep the appointment, as all the other members had gone to a funeral at Boqate. They were interviewed together in the presence of the chieftainess, whom it was impossible to exclude; she would seem to take an active part in the affairs of the committee and the two members showed considerable respect to her in expressing their opinions. The committee was chosen in May 1975; work

started at Christmas 1976 and was broken off in early June 1977. The Project suddenly withdrew without explaining anything to them or consulting the committee; the committee does not understand why the Project left in this way. A number of waterways were built but some were not planted with grass.

The members of the committee 'ba pasopa batho ba sebetsang, ba ba chaisa' (control the work force, tell them when to stop work). The committee had no problems at the early stage of the work; nobody refused to have his fields 'cut' for terraces. While the work was under way the members always had things explained to them by Project officers.

I suggested various conservation measures that might need to be taken in the area and they agreed to them all; this committee would seem inexperienced (although they were clear enough in naming the areas where the worst erosion occurs on village lands) but they are very definite in their pleas for work. The chieftainess was especially forceful in her requests that I find out what was happening and that the Project come back to work here. Her reason for requesting conservation work so urgently was that the people want the employment and the food: 'rea lla hobane rea lapa' (we are complaining because we are hungry).

At present the committee is stagnant: 'e lutse feela' (it just sits) and people do not refer to it at all. For two months they have not seen anyone from the Project, except on the occasion of Nokana's [1] death, when contributions to the condolence fund were collected. They were bitter about the way they have been ignored lately, and are jealous about the continuance of work in other villages - notably Ratau, where work has been under way for so long.

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[1] A member of the Project's soil conservation staff.

Village C

Tlokotsi Hlao
Malefetsane Mokitimi
'Malebajoa Moeti
'Mamakhala Lerata
'Mampho Makhele
Kotsoane Lepekola

All the members were interviewed, except Kotsoane Lepekola who works full time in Maseru. All the others work in the conservation labour force (Tlokotsi and Malefetsane are foremen, Malebajoa and 'Mampho are secretaries).

Tlokotsi Hlao

He was chosen at a pitso at the chief's place when the committee was first formed. Many people attended the pitso. He does not know why they selected him. The duties of a committee member are to work hard for the community ('sechaba') and to advise people how to prevent erosion and avoid famine, teaching them to rectify bad farming methods. He should advise the chieftainship on all conservation matters, particularly by notifying the chief of grazing damage. 'Mosebetsi o boima hobane re jere sechaba' (the work is hard because we are carrying the community on our shoulders). It is hard work representing the people, working for them and correcting them. Some people do not want to cooperate with the conservation measures: the committee approaches them with humility ('boikokobetso') and seems to be succeeding. The purpose of the committee is to preach to and urge the people ('se khothaletsa sechaba'): to prevent their soil from being damaged and thus to avert famine - 'ho phelisa sechaba' (to give the community life). The members get on well with each other and with the chief, who usually participates in meetings of the committee. There have been no problems so far except for that of Ramalepe from Ha Ntsi (who was threatening to shoot the machine operators if they entered his field), but he has been dealt with. Of course not much work has been done on people's fields yet. There are no problems with other villages and so far they have no complaints about Project staff. Further tasks for the committee, he says, are to plant trees at Mohalenyane, to learn to plant fruit orchards and vegetables and to establish suitable

areas for these activities in consultation with the people.

Malefetsane Mokitimi

He entered the committee at the beginning - he does not know why he was chosen, the people who chose him do. The duties of a member are to inspect the places where the Project says there is an erosion problem, and ensure that people understand the conservation work which is preventing damage to their land. He should prevent livestock damage to conservation works and learn from experts the best plan for improving and conserving the area; he should present these matters to the people. He should point out danger points for erosion and advise on how to deal with them. The work is not hard, he finds. His problems are in dealing with people who are opposed to having the work done in their lands. They are trying to teach people the error of opposition. They have succeeded in some places with the help of the chief. There is a law on these matters - the Laws of Lerotholi are quite categorical on the subject, so with the chief's help the problems can be overcome. The purpose of the committee is 'ho ba molomo oa sechaba, le litsebe tsa sechaba, le mahlo a sona' (to be the mouth, ears and eyes of the community). In other words, it must be the liaison between the government and the people; and it should deal with the chieftainship to ensure progress. They have good cooperation with the chief. Relations between members are good. One problem they have concerns people substituting other members of the family to work for them if they are sick. Some people in other villages are saying bad things about the committee because it hires Village C people only for the work force; for example this has led to quarrels with the people of Ha Motlatsi over rights to cut reeds in the border area between the two villages. He has no complaint about the Project staff. He can't think of other tasks the conservation committee could undertake; there is a separate committee for village development.

'Mamakhala Lerata

She was chosen together with the other members last year. They chose her 'ka lerato'(through love, because they liked her). The duty of a member is to represent the people in all their work, and to convey to the people and the chief all the matters in which he/she is given instruction. Another duty is to choose

people for the work force. The work of committee member is not hard: her only problem is learning properly at seminars. The purpose of the committee is to listen carefully to what comes from above and to convey it to the rest of the community. The members get on well together. Their main problem is in explaining the purpose and benefits of the work so that they understand properly. They have no problem with other villages or with Project officers. On the subject of other tasks for the committee to undertake, she feels that they should do whatever the important people above them tell them to do; she herself is not sure what this might be.

'Malebajoa Moeti

The committee was chosen in 1975; they spent a whole year just going to Matela's Farmer Training Centre seminars before actually doing anything. She does not know why the people chose her. The only task of a committee member, as she sees it, is to supervise or oversee the people and to advise them in the matters discussed at seminars ('ho sheba batho le ho ba eletsa litabeng tsa thupelo'). The work is easy; they have no problems at all, they work well and get on together. The task of the committee is to supervise the work being done; to check on problems and arrange to deal with them. Some people refuse to cooperate when it is announced that conservation work is to be carried out; the committee then calls the important officers ('liofisiri tse kholo') and the matter is explained further. The people all understand now, and she can see no further problems. She wants the committee to work on providing water supplies and to develop communal gardens.

'Mampho Makhele

She was chosen with the other members in 1975. She was elected by the people so that she should help them. The tasks of a committee member are to help the Project and warn of any damage that may occur. He/she should also warn of any problems with the people. She finds the work hard because of problems with the labour force: they may hire someone without really knowing what sort of person he is; there may be arguments; some people may not understand the work; others come to work drunk and cause fights, but in general they have been successfully

reprimanded. The purpose of the committee is to hire and fire labour; to deal with livestock that damages conservation works; to report the proceedings of seminars to the people and to inform the chief; and to help arrange such things as water supplies and vegetable gardens. The members get on well with each other and so far they have not had any problems of any kind. The committee should undertake further tasks as they materialise. She would like to see it encourage further employment in the area, eg., the establishment of small industries.

Village D

Ha Motseki	Mahlomola Ramokotjo (Chairman)
	Mohale Matlali
Pitsaneng	Mosioua Tsele
	Sechaba Ramatlapeng
Meholaneng	Mahloko Matela
	Thabo Mochesane

The chief had called the members to his place and all were interviewed except Mohale Matlali.

Mahlomola Ramokotjo

He entered the committee at its inception in 1975. Two members were elected at three pitsos in each of the villages. He is the chief of Ha Motseki, the people at the pitso there did not want to vote and just said they wanted to be represented by him, their chief. A member of the conservation committee should advise the chieftainship when he sees opportunities for benefit or cases of damage; he should make proposals for road improvements, and work on water supplies and improvements in the grazing system. His task is to urge the people ('oa khothaletsa'). At this time of the year, animals are grazing all over the village lands and can cause damage in many places. This makes the committee members unpopular with the people because they are always trying to reprimand them. He also has problems because he is both a chief and a committee member. The purpose of the committee overall is to develop and improve, and to establish the best ways of doing this. The members do not always cooperate fully, perhaps because they are spread between three different villages. Moreover, he finds he cannot always act effectively as chairman, possibly

because people confuse his role as chairman with his chiefly authority. The committee's biggest problem is controlling the livestock, since the conservation works are spread over the whole area of the village lands; they also have difficulty in preventing herdboys from lighting fires. People from Masaleng cause a lot of damage when they graze their stock here; the committee is trying to get the chiefs to consult on this. He has no complaint about the Project staff. They have many problems with people who take down the 'road closed' signs at night. There has been no conservation work at VillageD since May, although work remains to be done (eg. incomplete waterways and the road to Ha Motseki); there are also some dongas which have not been dealt with.

Thabo Mochesane

He was elected to the committee at the start of the work; there hasn't been another election since. He was elected so that he should concern himself with public affairs. Committee members should supervise conservation and other works; tell people where damage is taking place and arrange for action to be taken; and ensure that people understand what is going on. He finds the member's duties hard work because they have to deal with people's complaints; moreover, some people do not understand the purpose of the conservation work and cause damage with their stock, take down warning signs etc. The chief calls many pitsos to draw people's attention to these problems, but not everybody responds. They have problems in the hiring of labour - some people want to be employed but are not really able to do the work. He sees the purpose of the committee as being to execute the conservation work and coordinate with the chief who will give orders and prosecute those who cause damage. The committee should also reprimand those who have planted wheat, barley etc. on conservation works and close to grazing those areas where work is to be carried out. He does not feel the members work well together because if a member does not have his own point to discuss he tends not to come to a given meeting. The committee does not know who is responsible for damage to the conservation works because the damage is done at night. This problem of dissidents who cause damage is the committee's most serious one. Another complaint is that the committee has no

idea when the Project is going to return and complete the conservation work, if at all. As for further tasks, he thinks the committee should consult with the people and bring their suggestions or complaints to the Project.

Mosioua Tsele

He was elected at the inception of the committee; he thinks he was elected so that he should tell the people everything that developed in the programme of conservation work. When the Project takes action, it should tell the chief and the chief should call the people together so that the committee can explain this action to them. If a member sees a problem arising in the execution of the work, he should arrange for a meeting of the committee to discuss the problem and take action by informing the chief; the committee should explain to the chief what needs to be done. The committee should also consult with the local Project officer on any problems that arise. This is hard work, he finds, because as a member he must help both the people and the Project. 'Sechaba se busoa ka thata' (the people are hard to control) - it is difficult to get the community to respect waterways and to get it to respect those areas where work is taking place. Both adults and children cause difficulties in this respect. The purpose of the committee, both now and for a long time to come, is to look after the waterways. The only problem in relations within the committee is to get everyone to come together for meetings. When the Project stopped working the committee was not informed at all, so it was embarrassed in not being able to explain to the people whether the Project would return. The committee is harrassed by unknown people who come at night and spoil waterways and break down 'road closed' signs. They have no problem with Project officers. In the future the committee will have to supervise the conservation works in consultation with the people.

Mahloko Matela

He was elected to the committee in January 1976, some time after the others. He was chosen because people thought he would work reliably. The task of a committee member is to work for the community by consulting with the Project and the chief and people. He should satisfy the people about the Project work

which is taking place, by checking on the progress of that work. The work of a member is alright in itself, but it is made hard by certain people involved in conservation activities, because they have turned the people against the committee by closing the Project work in an unsatisfactory way. Their main problem is 'Ho koaloa ha se nang theriso' (closure without consultation): the Project broke its promise that such arrangements would be made in consultation with the committee, chief and people and simply closed down work. He sees the purpose of the committee as being to ensure peace with 'baokameli ba rona'(our supervisors, ie. the Project) and the chief, and 'the people for whom we work, who chose us'. But for the above reasons he thinks it unlikely that this peace exists at present; the reasons for cutting their work off from them were not given. He believes that the members get on well together. Another problem the committee has is the failure of some people to respect the conservation works. They also have difficulties with people from other villages working on the Village D operations, eg. a Village A committee member whom they found working with them for reasons that were unclear. The Project officers gave no cause for complaint until the present dissatisfaction. When the work was first closed proper explanations were given; this was not so on the second occasion (work stopped in August 1976, and started again in January or February 1977; then it was stopped again in May). His suggestions for future committee work are tree planting, perhaps fish ponds as was once promised by the Project, and more terraces in the fields.

Sechaba Ramatlapeng

He has been in the committee since the beginning. People chose him because they thought he would keep them informed. A committee member should do what the Project requires and ensure coordination between the people and the Project. He should convey the people's opinions to the Project, and vice versa. The Project should call the committee to check before it begins work on waterways, roads etc. He finds the member's duties hard because they are supposed to look after waterways; it would have been better if the Project had appointed someone especially to look after them, rather than giving the job

to the committee. Members are supposed to be messengers between the people and the Project, but because the Project has told them to enforce the protection of waterways people do not like or trust them well. He wants someone specially appointed to report damage to waterways to the committee, which would then deal with those responsible. The members are not agreed on whom to choose for this job. The committee's main complaint is that it did not know about the closure of the work; they should have been informed in advance, as was the case at the first closure. He has no ideas for future committee tasks other than what the Project may suggest.

Village E

Liphaphang Mokhanya
Fusi Lebabo
Ramarame Manyokho
Bernard Mpane
Thabiso Mokoatle (Chairman)
'Mamosioua Kuoape
'Mamasilo Matlali

I was told that conservation work in the area ended late in March 1977; they have not heard when it will be recommenced, although they have heard that there are still things to be finished off at Village A and Village D.

Ramarame Manyokho

An old man who worked for very many years as an interpreter in the head office of the South African Railways in Johannesburg. He was elected in a pitso at the chief's place on 1st September 1976, when the work began. Perhaps he was chosen because he was already a member of the land allocation committee. The duties of a member are to check on work in the fields; to improve the allocation of gardens here in the village; to consult other members and the Project on the best places for conservation work to be carried out; and to prevent damage to conservation works. This work is heavy because they have to explain things to the people and control them; the members have to help one another in this. A member may want to work in his own fields but be diverted by committee duties. The task of the committee overall

is to prevent erosion by preventing dongas, building waterways and planting grass: it must help the Basotho to harvest good crops. The committee, he says, is not yet well trained - 'we are still far from western civilisation'. There is no harmony in the committee; he explained that he and three other members were foremen on one section of the work; Liphaphang Mokhanya and the other members were foremen on another section. The latter section of the work was closed down, yet he and his fellow foremen were relieved of their duties and Mokhanya and the other foremen from the closed section were transferred to their section. Ramarame was most upset by this and calls it 'dictatorship'. The committee does not meet at present. The committee's big complaint, he says, is that they must work without payment, even though they don't have much to eat. If one hears of a 'piece job' being available in Maseru one automatically wants to go, but as a committee member one has to remain in the village.. He finds it very hard, to work without remuneration. They have no problems from other villages; their only complaint about the Project officers concerns Mr Molateli who relieved them of their duties as foremen. For the future, there are many roads to be improved and there are numerous other things, such as football grounds, which the committee might suggest if it were to meet and draw up an agenda. But at present it does not meet.

'Mamasilo Matlali

She has been in the committee since the beginning; she was chosen by the people because they hoped she would represent them well in the problems of communal gardens (she holds a certificate in this subject from the Matelas Farmer Training Centre) and all other matters. The task of a committee member is to guide the people and advise them in conservation work, working hard and neatly oneself; he/she should plant trees and work for progress in communal gardens. She does not find the work hard, apart from being unable to sleep over at the Training Centre because of her young family. The purpose of the committee is to bring progress to Lesotho; to carry out all types of work and to encourage the people; to hold discussions with the people and work well on conservation. She feels that the committee members get on well together. They have no problem apart from

deciding whom to hire and whom not to hire. As for Project officers, Mr Majoro caused difficulties by bringing Village F people to work on Village E land. As for other tasks, she points out that committees already exist for village development and communal gardens.

Thabiso Mokoatle

He was chosen at the same time as the other members; he is not a headman or chief, perhaps he was chosen because he had been to school and knew a little English, and had already done some development work in the village. He was chosen as chairman by the other committee members. The duty of a committee member is to supervise the conservation work; but as the member does not have authority he must consult constantly with the chieftainship. The member should check that people work correctly and are not lazy; he should work for water supplies and football grounds, and encourage education on soil erosion in the village by means of films and other methods. He does not find his duties hard; his only problem is that he has to work hard, going all over the village lands, without remuneration; 'bana ba shebile papa lapeng' (the children are looking for porridge at home), and he wants to be able to pay secondary school fees. The overall purpose of the committee was not clear before the F.T.C. seminar, but it is now evident that its task is to improve the land (both fields and grazing areas) in coordination with the chief; to supervise rotational grazing arrangements; to consult with the people and advise both the chief and the Project - this last is the central purpose. The committee should also deal with problems, misunderstandings and disagreements. Harmony is lacking within the committee because of politics. Some members sometimes ignore reasonable ideas for political reasons; members are reluctant to talk to each other properly, and there have been some clashes. All three parties are represented in the committee. If this problem could be solved the work could progress well, but he sees no solution. The main difficulty is a Prominent Citizen [1] who interferes in all the committe's work and causes most of

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[1] One who stood as a ruling party candidate in the 1970 general elections.

the damage. At present the committee's main problem is that it is not meeting, as conservation work is not taking place; therefore the members have dispersed to their various callings and if damage is taking place they cannot meet to take action. They have problems from the people of Ha Ramoseka, Hlasa and Ha Pita. These people graze their stock at Village E and can get away with damage to the conservation works, unlike local people. The chieftainship does nothing about this. On the subject of Project officers, he complains that they sometimes bypass the committee and foremen and address themselves to the villagers or labourers directly, without consulting the committee. He also sees that the Project officers do not like each other and that they try to hinder each other in their work; this also causes problems for the committee. He feels that the committee's present tasks are sufficient.

Fusi Lebabo

He has been in the committee since the beginning. People elected him because they thought he would get on with the work. The duties of a member are to encourage good farming and to prevent damage to the government works here; he should promote development and prevent soil erosion where such damage can be seen to be taking place; he should advise the people on the value of the soil. He should work well on the work directed by the soil conservation staff and thus combat dongas. He finds the work easy and has not yet encountered any problems. The purpose of the committee is to work on roads, give pitsos to inform people on development and encourage tree planting and rotational grazing. The committee does not get on well because some people don't want to get down to the work ('ho tšoara ka matsoho'); they are lazy and unwilling to listen to advice. Problems are caused by people from Qopo and Ha Nqetho, who spoil the land here with their animals and by lighting grass fires at night. There are no problems with Project officers. He cannot think of other work the committee could do.

Bernard Mpane

He is a headman at the chief's place. He was elected at the inception of the committee, because of his chieftainship and

because he had been involved in previous development work; also because he gets on well with the community. The duties of a committee member are to work well with the community, liaise with the people, Project officers and the government. He should look after his work and prevent damage, and he should feed his family by working. These tasks are alright, he has not had any problems yet. The duties of the committee overall are to work well with the people, the Project, the government and the chieftainship; to coordinate and consult. The members of the committee get on well together, he thinks. There have been no problems in the committee's work so far - he cannot say what the future may bring. They were caused difficulties by Mr Majoro bringing people from Village F to work on Village E land without any consultation in Village E at all. The Village E people spoke to those from Village F and persuaded them not to work. The conflict was purely verbal, not physical. Other tasks for the committee should be to plant trees in certain places, build dams, construct diversion furrows above fields and improve the roads in the village. The committee should be the driving force behind such improvements, making suggestions and getting action.

Liphaphang Mokhanya

He was elected at the start of the work, because he is already a member of the land allocation committee and of the village development committee. The work of a committee member is to look after the present operations, and to check on damage to the conservation work by livestock. When the work is taking place, members should help ensure that it goes well. They should bring those who cause damage to court and prosecute them. They should explain to the people, either all together or individually, the benefits of this work, and they should coordinate with the chieftainship in all these matters. This work is hard because the community does not understand properly what the work is for; it is hard to explain to them and teach them and deal with everybody's different misunderstandings. They have problems of finding out who is responsible for damage, especially when caused by children or done at nights; for example a fire was burning at the time of the interview which had been started the previous night. The overall purpose of the committee is development: to ensure the success of the soil

conservation works and thus help feed the community. The members do not work together; there are conflicts between the villages represented, and there are political problems also: all the different parties are represented in the committee, but he declined to elaborate. When the work was under way, the committee had difficulties in hiring some people and not others, which resulted in some long arguments; there were also problems in explaining the work to the people. Mr Majoro and Mr Letsie caused unpleasantness over the incident with the Village F labourers. He sees road work as an important task for the committee; he wants to improve the roads to the fields.

'Mamosioua Kuoape

She was elected at the beginning of the committe's work; she doesn't know why she was chosen. The task of members is to hire people for the conservation work, and to work themselves. They should also prevent damage to this work. She can't think what the other tasks of a member are, although she has them written down in her notebook. She finds her work alright, and has no problems. The purpose of the conservation committee is to speak for the people, and to get work for them. She would have to refer to her book for the other duties. She does not find the committee gets on well together. It has encountered no real problems. When the present work is finished, she believes that the committee should move on to other things; it should consult with the people and the Project for this.

Village F

The chief called the members to his place, and all except Tseko Mosola attended. The list of members is as follows:

Thetsane Mahoholi (Chairman)
Karabo Lebina
Motso Melao
Mosolotsane Peleha
George Mateu
Tseko Mosola

Thetsane Mahoholi

He has been in the committee since it was formed, and is a foreman on the present conservation works. He was chosen

because he has worked for the community for a long time, being a counsellor of the chief. His task as a member is 'ho khotsofatsa sechaba se nkhethileng' (to satisfy the people who chose me) - to do what they want him to do and do it well. He should see what would be good for the community, eg. planting trees, making good roads and installing water supplies. This work is hard if one does not have good relations with the people, which he has. He has no serious problems. The purpose of the committee is to ensure coordination between the people and the chief, and to deal with each and everyone's problems. He thinks the members get on well together but fears that some of them may occasionally be afraid to express their opinions. The committee has had no real problems so far - the people have cooperated well. There have been requests from other villages that they should help them, but he sees no way of doing so. Mr Majoro upset them by sometimes bypassing the committee and taking action without consulting them. As for the future, wherever the committee sees need for action, it should take it; there is no specific instance so far.

Karabo Lebina

He joined the committee after most of the others on the death of a previous member. He was chosen by the people at a pitso; he does not know why he was chosen. He sees the duties of a member as being to prevent damage on waterways, to hire labour and to go to seminars at the F.T.C. He finds this work alright and has no problems. The duties of the committee are to build waterways, to represent the people at the F.T.C. The members get on well together, and the committee has not met any difficulties as yet. He had a slight reservation about the Project officers, but did not wish to elaborate. Further work for the committee should be to look for instances of damage, eg. dongas which need action.

Mosolotsane Peleha

He also entered the committee a little later on; he was called by the committee to 'fill it up', and was not elected at a pitso. The work of a member as he sees it is to keep livestock off waterways and impound offending animals. Offending stockholders should be taken to the scene of the damage and have

the problem explained to them. Another duty is to explain to the people the proceedings at the F.T.C. seminars. This is good work, he finds, and he has had no problems. The committee, which he believes is working well, must hire people, and must tell the chief what arrangements are being made for conservation. It should not hire people from outside the village and should check on the demarcation between village committees. Since Mr Majoro left, the committee has had no problems; Mr Molateli gives no cause for complaint. Under Mr Majoro 50 people were hired, but he took three aside and said that these would work for him alone, on his tasks. This surprised and offended the committee. He sees no other tasks for the committee to undertake - the principal one is the hiring of labour.

George Mateu

He has been in the committee since the beginning; he does not know why he was elected. The duties of a member are to improve the land through soil conservation; to prevent dongas; to liaise with the chief; to prevent damage to waterways. 'Naha ea rona ha e no khutla; e ne e se e balehile' (our land will not return; some of it has already run away). He finds the work easy because it is going well. His problem is having been demoted from the position of foreman to a mere labourer; and yet he has been working for a long time. The committee as a whole should be alert to damage to waterways and closed roads. Moreover, it should share within itself; the money should not be paid to just a few members (through their employment as foremen). He doesn't believe the committee gets on well together, because of this matter of some having the position of foreman and not others; he believes it should be passed around. The committee's main problem is this disagreement. Mr Majoro did not satisfy them, owing to his taking aside three labourers. Mr Molateli is satisfactory. He believes the committee should get together with the village development committee and the chief to prevent people and livestock from using closed roads.

Motso Melao

He was elected to the committee at the outset; he was chosen by the people so that he should represent them. The responsibilities of a member are soil erosion; he must supervise

conservation work, deal with problems that arise in the course of this work and see what operations will be most beneficial. This work is easy, and he has had no difficulties. The committee was elected to deal with the people's problems in the conservation work; it should check on the progress of the work and prevent arguments among those involved. It should also establish where conservation efforts are most needed. The committee work harmoniously. There have been problems of arguments among the workers, but they have not been serious. There has been no difficulty with other villages or with the Project officers. He cannot think of any other tasks the committee can undertake.

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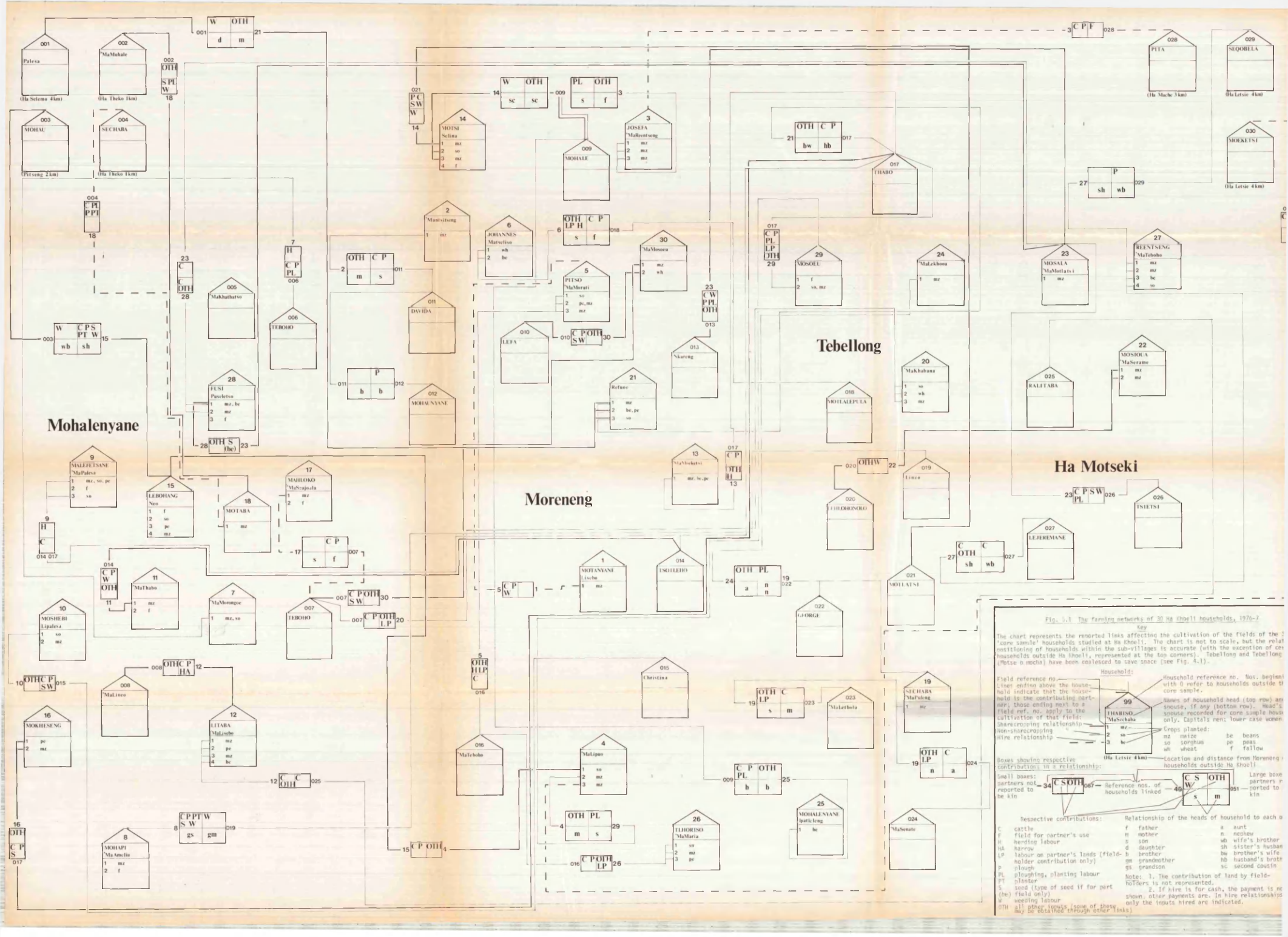

Fig. 4.1 The farming networks of 30 Ha Khoeli households, 1976-7

Key

The chart represents the reported links affecting the cultivation of the fields of the 3 'core sample' households studied at Ha Khoeli. The chart is not to scale, but the relative positioning of households within the sub-villages is accurate (with the exception of certain households outside Ha Khoeli, represented at the top corners). Tebellong and Tebellong (Motse o mocha) have been coalesced to save space (see Fig. 4.1).

Household:

Field reference no. — Household reference no. Nos. beginning with 0 refer to households outside the core sample.

Names of household head (top row) and spouse, if any (bottom row). Head's spouse recorded for core sample households only. Capitals men; lower case women.

Crops planted:
mz maize
so sorghum
wh wheat
be beans
pe peas
f fallow

Location and distance from Moreneng of households outside Ha Khoeli

Boxes showing respective contributions in a relationship:

Small boxes: partners not reported to be kin

Large boxes: partners reported to be kin

Reference nos. of households linked

Respective contributions:

C cattle
F field for partner's use
H herding labour
HA harrow
LP labour on partner's lands (field-holder contribution only)
P plough
PL ploughing, planting labour
PT planter
S seed (type of seed if for part (be) field only)
W weeding labour
OTH all other inputs (some of these may be obtained through other links)

Relationship of the heads of household to each o

f father
m mother
s son
d daughter
b brother
gm grandmother
gs grandson
a aunt
n nephew
wb wife's brother
sh sister's husban
bw brother's wife
hb husband's broth
sc second cousin

Note: 1. The contribution of land by field-holders is not represented.
2. If hire is for cash, the payment is no shown. other payments are. In hire relationships only the inputs hired are indicated.

Fig. 4.1

Ha Khoeli

Scale: approximately 1:3,500

60 0 100 200 300 m

Legend

- 2040 — Contours (V.I. 20m)
- Rivers
- Survey area boundary
- Village areas
- Fields
- Fields of one household in Mohalenyane
- Fields of one household in Moreneng
- Field of one household in Tebellong (Motse o mocha)
- Fields of one household in Tebellong
- Fields of one household in Ha Motseki

(Note: some of these households may also have fields outside the survey area.)

N